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Abbreviations

BIMCO	Baltic and International Maritime Council
CBDT	Central Board of Direct Taxes
CSO	Central Statistical Organisation of India
DMET	Directorate of Marine Engineering Training
ECB	External Commercial Borrowing
EEZ	Exclusive Economic Zone
FG	Foreign Going
FoC	Flag of Convenience
FODAG	Flag Officer Offshore Defence Advisory Group
GDP	Gross Domestic Product
GRT	Gross Registered Tonnage
GVA	Gross Value Added
ILO	International Labour Organisation
IMO	International Maritime Organisation
INSA	Indian National Shipowners Association
ISF	International Shipping Federation
IT Act	Income Tax Act
MERI	Maritime Engineering Research Institute
MODU	Mobile Offshore Drilling Units
MoS	Ministry of Shipping
MMT	Million Metric Tonnes
MRA	Maritime Regulatory Authority
NOR	Not being Ordinarily Resident
NRI	Non Resident Indian
NRT	Net registered tonnage
OSV	Offshore supply vessels
OPEC	Organisation of Petroleum Exporting Countries
P&I	Protection and Indemnity
PSUs	Public Sector Undertakings
ROE	Return on Equity
SCI	Shipping Corporation of India
SCICI	Shipping Credit and Investment Company of India
SDFC	Shipping Development Fund Committee
SRF	Shipping Reserve Fund

STCW	Standards of Training Certificate and Watch Keeping of seafarers
TDS	Tax deducted at source
TCY	Time Charter Yield
TERI	Tata Energy Research Institute
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development

Executive summary

Background

India has a coastline of nearly 7500 km with 12 major ports and more than 150 minor and intermediate ports. Shipping is the largest and the most important mode of international transportation. Around 95% of Indian overseas trade in terms of volume and 68% by value is sea borne. The role of shipping in the promotion and facilitation of a country's trade and economic development has been recognised by maritime countries the world over.

The Indian shipping tonnage increased from 0.19 million grt in 1947 to 7.05 million grt in 1999 representing an annual growth rate of 7.2 %. The Ninth Plan (April 1997 to March 2002) envisaged an increase in the total Indian fleet strength from 6.92 million grt to 9 million grt. This represented a total additional acquisition of 2.08 million grt. As on 1 January, 2002 the industry consisted of 557 ships with a gross registered tonnage of 6.94 million.

The falling share of the Indian shipping industry in carriage of India's total overseas sea-borne cargo has been a cause of concern. Some have questioned the significance of an Indian shipping industry in the Indian economy. The contribution of the Indian shipping industry to the Indian economy has not been properly understood. This study discusses how far a national shipping fleet goes towards protecting our national security, examines its competitiveness, evaluates economic contribution of the Indian shipping industry to the Indian economy , and finally, assesses the revenue implications for the government, if a Tonnage tax scheme was implemented.

Energy and national security

The protection of Indian flag vessels carrying imported crude from other locations to Indian ports, strategic port locations in India, and offshore terminals and pipelines is essential from the point of view of energy and national security. There is a strong need for Indian flag vessels to carry imported crude, and maintain supplies chains for all essential commodities in times of emergency. Essential support should be given to Indian flag vessels to service the oilfields support sector and port services support sector to minimize risks. There is also an important need for presence of Indian flags for strategic reasons.

Competitiveness of the Indian shipping industry

There are certain aspects of the operating costs, which place Indian shipping companies at a disadvantage vis-à-vis their foreign counterparts.

Insurance

Indian ship owners are statutorily required to insure their fleet for hull and machinery with Indian insurance companies. The premium rates (fixed by the tariff advisory committee) have traditionally been much higher than those prevailing internationally.

Depreciation

The rate of depreciation as applicable to the shipping industry is 25%. In contrast, transport vehicles such as trucks and cars are permitted a 40% rate of depreciation. There is a strong case for removing this inequity by raising the depreciation rate to 40% as it would help companies build up reserves in profitable years to finance fleet replacement and growth.

Tax regime for Indian shipping companies

Indian shipping companies are subject to corporate tax (35%). The effective rate of taxation in the past years , worked out to be around 22% (from 2002 to 2003 onwards with the benefits under the Section 33 AC of the Income Tax Act, 1961, effective rate of taxation works out to be 7.5%), which is among the highest in the global shipping industry, where around 94% of the world shipping is under a very low tax regime. Further, 70% of the world's shipping is owned by a group of countries, which is following the conventional tonnage tax system in which ship owners have the benefit of paying a very low and fixed amount of tax. Approximately 15% of world shipping is owned by a group of countries that offers corporate tax along with an optional tonnage tax system where the tax liability in either case works out to be 1% to 2% of the taxable income.

Manpower related issues

Indian officers in shipping industry are some of the best-trained officers in the world and their demand has been increasing over the years. The Indian taxation regime for, both the companies and ship personnel, imposes additional costs making employment on Indian ships unattractive. Indian officers and crew employed on Indian flagged vessels (for a period of less than 183 days) are subject to income tax. No such taxation requirement is imposed on foreign flags making employment on these flags more attractive. This means that Indian shipping companies are not able to retain quality manpower in India. These disadvantages deprive the Indian shipping industry of a level playing field in the global market.

There is a need for removing distortions in the above areas to make the Indian shipping industry more competitive.

Contribution of the shipping industry to the economy

The GVA (Gross value added) from the shipping industry increased from Rs 9195 million in 1990-91 (at 1993-94 prices) to Rs 15242 million in 2001-02. The average GVA from the shipping industry per gross registered tonnage (grt) per year was Rs 2211 per unit of GRT per year. This implies that on an average, the value added by the Indian shipping industry in a given year to the economy for an additional unit of grt is Rs 2211.

The contribution of the Indian shipping industry to the economy is positive. A one percent change in GRT is likely to bring about a 0.0068% change in GDP.

The adoption of tonnage tax scheme is likely to reduce the tax revenue that may accrue to the government, because tonnage tax collected by the Government would be much lower than corporate tax. But tonnage tax, would allow the growth of additional tonnage and hence a positive impact on the GDP of the economy. This will positively impact on the potential tax revenue (direct and indirect). By contrast, a corporate tax scenario, would lead to a decline in tonnage and a negative impact on the potential tax revenue (direct and indirect) of the Government.

Imposition of tonnage tax (a taxation system which is widely used in other countries) would help attract not only foreign direct investment (FDI), but also new players into this sector, as has been experienced in other countries. This would again increase tonnage and have a positive impact on the economy.

Recommendations

There is a need for an investment environment conducive to the growth of the national fleet by providing a level playing field to the industry and improving the competitiveness of the Indian shipping industry. The following are recommended:-

1. Introduce a tonnage tax regime with the shipping companies free to adopt the tonnage or the corporate tax regime.
2. Withholding tax on the interest paid on ECB's should be abolished.
3. Indian nationals serving on Indian flagged ships should be treated on par with those employed on foreign flagged ships.

1

Introduction

ackground

The Indian shipping tonnage on the eve of independence stood at 0.19 million grt consisting of 48 coastal ships of 0.12 million grt and 11 overseas ships of 0.07 million grt.

Since then, the Indian shipping tonnage has expanded substantially. Although the period from 1947-1960 was one of slow growth (in 1960, the grt stood at 0.844 million), the most important period was between 1960 and 1975. The grt during this period grew by 6 times from the 1960 level, to 5 million grt. There were a number of factors that accounted for this growth: expanding foreign trade, availability of finance on easy terms, and major support by the government through the Shipping Development Fund Committee (SDFC) encouraged the expansion of the shipping industry. However, after this growth slowed, and even declined for some part of the nineties. The depression in the maritime industry world over may have also contributed to the stagnation. But in countries such as China and Korea, even world recession did not slow down fleet expansion. These countries registered substantial increase in their fleets during this period.

Given the slow growth experienced by the Indian shipping industry, the need to understand the reasons of the same has been recognized by the Government and several expert committees have been formed in the past. For instance, the Planning Commission's Working Group on Shipping for the 10th Plan (2002-07) has stressed need for the Government to take on the role of a facilitator, and create opportunities of a hospitable environment for investment in the shipping industry. It, inter alia, has recommended strong supportive Governmental policy for the shipping industry, simplification of procedure for ship acquisition by public sector companies, granting export industry status for shipping, continuation of present cargo support policy, flagging out ships by Indian shipping companies to foreign flag registries or establishing second national registry in Special Economic Zones, giving an option for adoption of tonnage tax in lieu of corporate tax on the lines introduced by Netherlands, Norway etc. The Rakesh Mohan Committee (2002) has also recognized the vital role of shipping in the national economy, and recommended adoption of tonnage tax giving the shipping companies the freedom to opt for the scheme or continue with the corporate tax regime. It noticed the differentiation in the income tax treatment of Indian seafarers employed on Indian ships as against those employed on foreign ships, which has led to the problems of efficient manning of Indian ships with qualified and experienced personnel. It recommended that Indians be treated on a par with personnel employed on foreign ships. It has also suggested enhancement of the rate of depreciation on ships, relaxation of External Commercial Borrowing (ECB) norms, restoration of exemption from withholding tax on interest payment on ECBs, etc. Details of the recommendations of various expert committees are given in Annexure 1.1. All these recommendations are under various stages of consideration.

Further, the announcement of increase in deductions allowed under Sec.33AC of I.T. Act from 50% to 100% of the profits from shipping operations for 5 years w.e.f. FY 2001-02 was made in the Union Budget for 2000-01. The Union Budget for 2002-03 has enhanced the scope of Sec.33AC from twice the amount of paid-up share capital of the company to include share premium as well as general reserves.

Objectives of study

The falling share of the Indian shipping industry in the carriage of India's total overseas sea-borne cargo has been a cause of concern. Some have questioned the significance of an Indian shipping industry for the Indian economy. The contribution of the Indian shipping industry to the Indian economy has not been properly understood and TERI was appointed to carry out a study whose objectives are given below:

1. To examine how far a national shipping fleet goes in protecting our national security,
2. To evaluate the contribution of the Indian shipping industry to the Indian economy, examine its competitiveness, and assess the need to have national flag vessels, and
3. To assess revenue implications for the government, in the event of implementing a tonnage tax scheme.

The study covers the overseas shipping sector, although it is recognized that the coastal shipping forms an integral part of the shipping industry. However, due to paucity of time, only a review of the policy reform measures in the overseas shipping industry has been carried out.

Methodology

The study is based on both a literature review and earlier studies in India. Analysis are based on primary and secondary information. Discussions and consultations with relevant stakeholders and sectoral experts were carried out. Detailed consultations were also carried out with INSA during the project.

Structure of the report

Following the introduction chapter, Chapter 2 gives an overview of the Indian shipping industry elaborating on its historical perspective (growth of Indian fleet, the age profile, etc.). Chapter 3 covers energy and national security issues and looks at the dependence of the Indian economy on imported crude oil, and the role that the shipping industry plays and is likely to play in supporting sensitive cargo movement and in ensuring that supply chains are maintained. Chapter 4 discusses the human resource development in the maritime industry. It identifies the major issues of concern in the industry, the supply-demand scenario of the Indian seafarers, and the impact of the emergence of Flag of Convenience vessels and taxation regime. A comparison of the wage bill for an Indian flag vessel vis-à-vis a foreign flag vessel has also been carried out. The next chapter deals with the economic impact of the Indian shipping industry. In this chapter, estimates have been arrived at for contribution of the Indian shipping industry to the Indian economy. The implications of the tonnage tax (as proposed by the Rakesh Mohan Committee (2002) on tax revenue of the Government have also been assessed.

Chapter 6 deals with the conclusions and recommendations of this study.

2

Overview of shipping industry

Historical perspective of Indian shipping

India's maritime history dates back to the Indus Valley Civilization 5,000 years ago, when an active trade relationship existed with Egypt and Mesopotamia. The new era in India started in the mid nineteenth century with establishment of trade by the East India Company. The major milestones in the shipping industry since 1919 are summarized in Table 2.1.

Table2.1 Milestones of shipping industry

Year	Milestones
1919	- First National Shipping Company, Scindia Steam Navigation Company, setup - Makes historical trip between Bombay and London with a Swadeshi flag on 5th April
1927	Training Ship Dufferin established
1947	Gross tonnage of Indian fleet stands at 0.19 million tonnes
1949	Directorate of Marine Engineering Training (DMET) established
1952	Coastal trade reserved for Indian shipping companies
1958	- Transchart established - National Shipping Board setup to advise government on shipping matters
1959	Shipping Development Fund Committee established
1963	Dr Nagendra Singh appointed President of International Maritime Organization (IMO)
1964	From this year onwards, National Maritime day is celebrated every year on 5th April
1968	Gross tonnage crosses 2 million tonne mark
1972	T S Rajendra, a new training ship replaces T S Dufferin
1973	Dr Chandrika Prasad Srivastava appointed as Secretary General of IMO
1974	Gross tonnage crosses 3 million tonne mark
1982	Gross tonnage crosses 6 million tonne mark
1987	– Shipping Development Fund Committee abolished – Shipping Credit & Investment Company of India (SCICI) established
1992	Partial disinvestment of government's stake in SCI
1993	T S Chanakya, a shore based academy, replaces T S Rajendra
1996	Gross tonnage crosses 7 million tonne mark
1997	SCICI merges with ICICI
1998	Cost plus formula in carriage of crude oil dismantled by government and market related freight rates implemented
2001	Proposed disinvestment of SCI

Source : Maritime 2000

Profile of the Indian shipping industry

As on 1 January, 2002 the industry consisted of 557 ships of 6.94 million grt. The Plan targets for shipping tonnage have not been achieved in any, except the Third Plan. At the end of Ninth Plan, the Indian fleet's tonnage achievement was 6.82 million grt as against a target of 9.00 million grt.

A category- wise analysis of the fleet as on 1.2.2002 is given in Table 2.2.

Table2.2 Category- wise analysis of the fleet

Type of ship	Number. of ships	grt	DWT
OVERSEAS			
Dry cargo liner	14	172019	225826
Cellular container vessel	9	131480	171128
Dry cargo bulk carrier	106	2615112	4455900
Ore oil bulk carrier	4	200148	355069
Oil tankers (crude oil carrier)	34	1875250	3455742
Oil tankers (product carrier)	45	990451	1642339
Passenger-cum-cargo vessel	1	8279	8820
Acid carriers	7	96925	154012
Timber carriers	2	7486	12564
LPG carrier	6	118738	138122
Total (overseas)	228	6215888	10619522
COASTAL			
Dry cargo vessels	65	85501	129166
Tugs	96	24987	6486
Dry cargo bulk carriers	13	204657	322698
Oil tankers (crude oil carriers)	2	54943	82249
Oil tankers (product carriers)	11	54892	89650
Passenger-cum-cargo vessels	12	67251	27882
Passenger carriers	14	4139	576
Ethylene gas carriers	3	8727	6960
Ro-Ro vessel	1	956	1386
Dredgers	16	72146	12408
Total (Coastal)	233	578199	679461
OFFSHORE SUPPLY VESSEL/SPECIALIZED VESSELS			
Offshore supply vessels	69	73926	85426
Specialized vessels for offshore service	27	79242	59205
Total (OSVs)	96	153168	144631
Total (Overseas, Coastal, and OSVs)	557	6947255	11443614

Source INSA Annual Review, 2001-2002

Only 8.3% of the total grt in India is accounted for by coastal vessels (excluding offshore supply vessels or specialized vessels for offshore service). Dry cargo liners and oil tankers are the major types of vessels used in coastal trade. Around 21% of the total volume of trade handled by dry cargo liners, and only 3.7% of the total tonnage of oil tankers is used for coastal trade.

Growth of the Indian fleet

The growth profile of the Indian shipping industry is given in Figures 2.2 and 2.3. The Indian shipping tonnage has increased from 0.19 million grt in 1947 to 7.05 million grt in 1999 representing an annual growth rate of 7.2 %. The Ninth Plan (April 1997 to March 2002) envisaged an increase in the total Indian fleet strength from 6.92 million grt to 9 million grt. This represented a total additional acquisition of 2.08 million grt.

The growth pattern since independence can be divided into three eras:

- Era of slow growth (1947 to 1960)
- Era of rapid expansion (1960 to 1985)
- Era of decline and stagnation (1985 to till date)

In the first two decades since independence, the nascent state of industrialization in India, absence of a well-settled policy framework, and financial and foreign exchange constraints, led to slow growth in Indian shipping tonnage. The annualized growth is however highest in this period because of a low base i.e., very small shipping tonnage at the time of independence. In absolute terms, the period represented low levels of tonnage acquisition and hence is classified as an era of slow growth. However, the second era especially the period between 1965 and 1980, represented a tremendous achievement for the Indian shipping industry in building up a large merchant fleet: growth was assisted by liberal financial support of the SDFC, buoyancy in global economy, trade and shipping and government support.

Since the 1980's, crises at a global level triggered by the OPEC oil price hike, presence of a restrictive regulatory framework even though this had earlier supported growth, and occurrence of a natural phenomenon of cyclical boom and bust witnessed in all industrial and business sectors, led to the gradual stagnation in the Indian shipping industry (Figures 2.2 and 2.3).

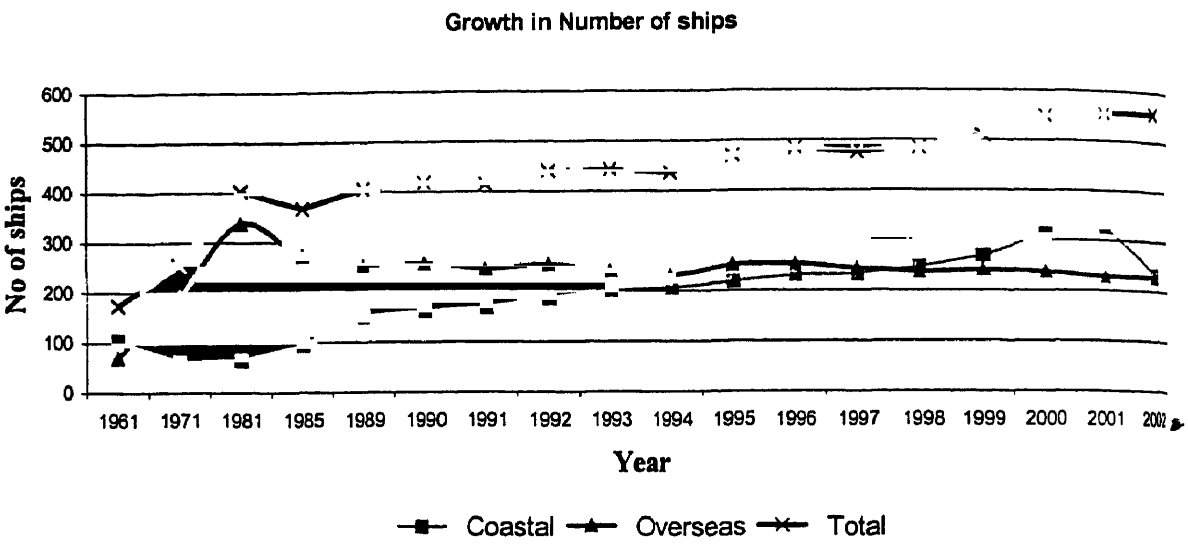

Figure 2.1 Growth in number of ships

Source MOST, 2000 and INSA Annual Review 2000-2001

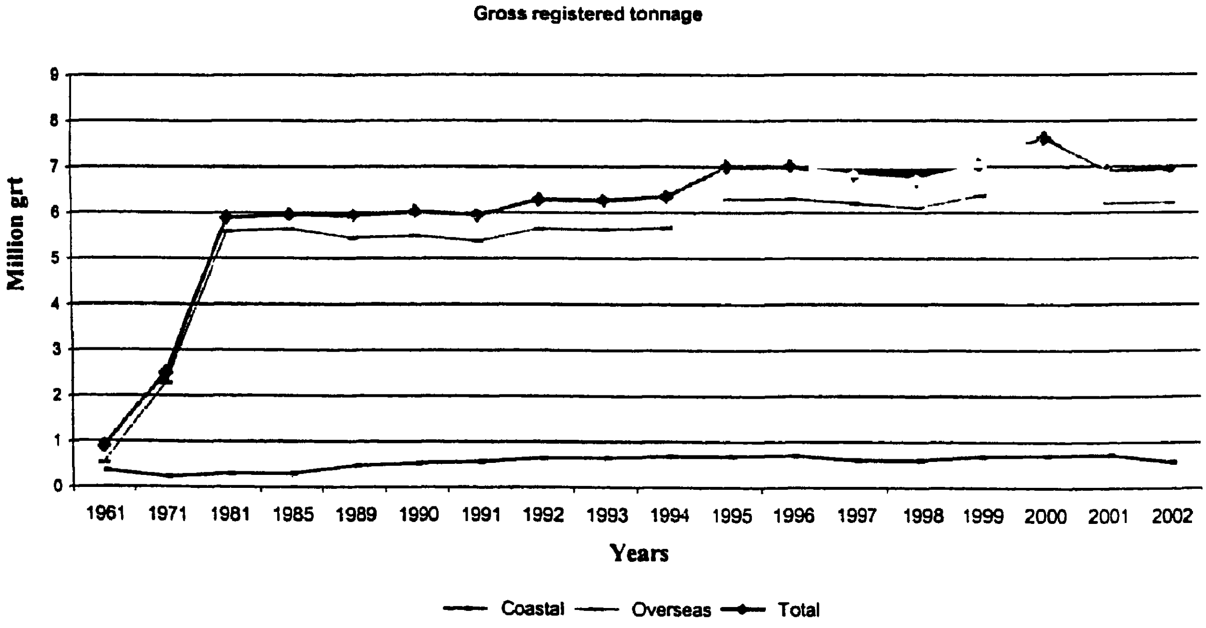

Figure 2.2 Growth in gross registered tonnage

Source MOST, 2000 and INSA Annual Review 2000-2001

Age profile of Indian shipping

An analysis of the age profile of the Indian fleet up to September 2002 (Table 2.3) shows that about 21% of Indian ships are up to 9 years old, 42.5% in the age group between 9 and 20 years, and 36.5% are above 20 years old. The average age of Indian fleet is 17 years, compared to the world average of 20 years. The changing age profile of the Indian fleet is also given in Table 2.3, which shows that there has been an increase in older ships over the years particularly in those age group of 16 to 20 years and above, while there has been decline in younger ships added to the Indian fleet.

Table 2.3 Detailed age profile of India's overseas shipping tonnage since 1980

Year	Up to 5 yrs.	6-10 yrs.	11-15 yrs.	16-20 yrs	Over 20 yrs.	Total
			'Million GRT			
1980	1.4	2.0	1.2	0.5	0.4	5.4
1981	0.9	2.4	1.1	0.8	0.4	5.6
1982	0.9	2.4	1.1	1.0	0.3	5.7
1983	0.7	2.4	1.2	1.0	0.5	5.8
1984	1.0	2.0	1.5	1.0	0.5	6.0
1985	1.4	2.0	1.5	0.6	0.2	5.7
1986	1.5	1.4	1.7	0.5	0.1	5.1
1987	1.4	1.0	2.1	0.5	0.1	5.0
1988	1.3	1.0	2.1	0.6	0.2	5.2
1989	1.0	1.3	2.0	0.9	0.2	5.4
1990	0.7	1.5	1.6	1.5	0.3	5.5
1991	0.5	1.6	1.3	1.9	0.2	5.4
1992	0.7	1.6	1.1	2.1	0.2	5.6
1993	0.8	1.4	1.1	2.0	0.4	5.6
1994	1.0	1.0	1.5	1.6	0.5	5.7
1995	1.1	0.8	2.1	1.3	0.9	6.3
1996	0.9	0.8	2.3	1.2	1.2	6.3
1997	0.7	0.9	2.1	1.2	1.3	6.2
1998	0.7	0.9	1.7	1.2	1.6	6.1
1999	0.6	1.3	1.2	1.7	1.6	6.4
2000	0.3	1.1	0.8	2.3	1.7	6.2
2001	0.3	0.8	1.1	2.1	1.9	6.2

Source: MOST 2000 and INSA

Company-wise profile

Shipping Corporation of India has the largest fleet in India with a share of around 38 % in terms of total dead weight tonnage. In the private sector, Great Eastern Shipping is the largest fleet owner with a share of around 12.2% in total dead weight tonnage. The Indian shipping industry is thus characterized by a large number of companies with few vessels. The company-wise profile is given in Table 2.4.

Table2.4 Company-wise profile

Company	Average age (years)	No of ships	DWT (million)
SCI	16.5	93	4.36
Great Eastem	14.7	59	1.4
Essar	14.8	29	1.29
Chowgule	8.6	10	0.38
Sanmar	18.9	7	0.30
Tolani	13.9	7	0.28
Varun	21.3	10	0.27
Surendra Overseas	13.4	5	0.24
Radiant Shipping	18.8	8	0.21
West Asia Maritime	12	4	0.20
Century Shipping	13.7	4	0.16
South India Corporation	17	4	0.16
India Steamship	21	3	0.16
ICL Shipping	21.3	3	0.16
Poompuhar	16	3	0.12
Others	18.2	64	0.30
Total (INSA fleet)	16.3	313	9.99
Total Indian Fleet		557	11.44

Source INSA Annual Review 2000-2001

Indian shipping in the global context

The Indian shipping fleet (cargo- carrying vessels) in terms of number of vessels (100 grt and above) represents 0.91% of the world fleet and 1.2% of the total world's gross tonnage. Globally, the Indian fleet holds the 19th rank among world maritime nations in terms of gross tonnage by flag of registration, while in terms of dead weight tonnage, it is at 15th position (for the year 2000). Indian shipping in India's overseas sea borne trade has declined from 40.7% in 1987-88 to 31.5% in 1999-2000 as given in Table 2.5. During 1999-2000, 55% of POL and products were carried by Indian bottoms, whereas only 7.3% of general cargo and 14.4% of dry bulk cargo were carried by Indian bottoms.

Table2.5 Participation of Indian ships in India's overseas trade (in percent)

Year	General cargo	Dry bulk cargo	POL and products	Total (Indian lines)
1984-85	24	23	70.4	36
1985-86	20.7	22.8	75.2	34.9
1986-87	21.9	25.4	78.4	37.8
1987-88	15.6	27.3	71.4	40.7
1988-89	15	22.1	66.2	34.2
1989-90	16.4	24.8	67.8	35.8
1990-91	12.6	24.2	61.8	35.5
1991-92	12.9	28.9	58.2*	36.7
1992-93	14.4	23.3	57.3*	34.9
1993-94	8.8	20	60.6*	33.6
1994-95	9	17	54.3*	28.7
1995-96	10.4	14.5	53.3*	27.8
1996-97	9.8	16.1	55.3*	29.8
1997-98	12.4	14.4	62.3*	31.4
1998-99	14.3	15.2	55.1*	30.8
1999-2000	7.3	14.4	55*	31.5

*Includes other liquid cargo

Source INSA Annual Review, 2000-2001

Contribution to the Indian economy

According to an estimate (NCAER, 1993), the total freight bill for India's foreign trade in merchandise worked out to Rs 6,2650 million or 9.2% of the value of sea-borne trade in 1991-92. Out of this, Indian ships earned Rs 1,8690 million and foreign ships earned Rs 4,3960 million. Also, according to the Rakesh Mohan Committee (January 2002), the freight content of India's foreign trade was of the order of US $ 6.7 billion (Rs 321600 million @ Rs48 per $) in the year 2000/01.

The Indian shipping industry has thus facilitated earnings of gross foreign exchange by way of freight and charter hire to the extent of Rs 6,9020 million during the year 2000-01. However, shipping earnings constituted about 3.4% of the country's total export earnings of approximately Rs. 201,6740 million in 2000-01. The net foreign exchange earnings of Indian shipping are given in Table 2.6.

Table 2.6 Net foreign exchange earnings of Indian shipping

	Foreign exchange earnings of Indian shipping (in Rs. billion)	
	Gross earning/ Receipts (total revenue)	Net earnings (net inflows after financial costs)
1991-92	269.8	155.7
1992-93	317.6	180.8
1993-94	428.5	284.8
1994-95	420.6	265.0
1995-96	490.6	321.5
1996-97	500.7	285.6
1997-98	532.5	321.6
1998-99	549.0	330.6
1999-2000	571.9	353.4
2000-2001	718.6	467.3
2001-2002	778.2	462.0

Source INSA Annual Review 2000-2001

Notes.

1 Figures for 1991-92 are based on statistics received from 13 Member Companies of INSA representing 84.2% of Indian Tonnage with total prorated to represent 100% of the fleet.

2 Figures for 1992-93 are based on statistics received from 14 Member Companies of INSA representing 78% of Indian Tonnage with total prorated to represent 100% of the fleet.

3 Figures for 1993-94 are based on statistics received from 18 Member Companies of INSA representing 83.8% of Indian Tonnage with total prorated to represent 100% of the fleet.

4 Figures for 1994-95 are based on statistics received from 13 Member Companies of INSA representing 83% of Indian Tonnage with total prorated to represent 100% of the fleet.

5 Figures for 1995-96 are based on statistics received from 16 Member Companies of INSA representing 89.2% of Indian Tonnage with total prorated to represent 100% of the fleet.

6 Figures for 1996-97 are based on statistics received from 15 Member Companies of INSA representing 82.1% of Indian Tonnage with total prorated to represent 100% of the fleet.

7 Figures for 1997-98 are based on statistics received from 14 Member Companies of INSA representing 80.9% of Indian Tonnage with total prorated to represent 100% of the fleet.

8 Figures for 1998-99 are based on statistics received from 12 Member Companies of INSA representing 83.3% of Indian Tonnage with total prorated to represent 100% of the fleet.

9 Figures for 1999-2000 are based on statistics received from 14 Member Companies of INSA representing 82.1% of Indian Tonnage with total prorated to represent 100% of the fleet.

10 Figures for 2000-01 are based on statistics received from 14 Member Companies of INSA representing 77.8% of Indian Tonnage with total prorated to represent 100% of the fleet.

11 Figures for 2001-02 are based on statistics received from 14 Member Companies of INSA representing 74.6% of Indian Tonnage with total prorated to represent 100% of the fleet.

In recent past has, there has been substantial growth both in the offshore support sector and the port terminal support sector. Development in the offshore sector has given rise to specialized ships including anchor handling vessels, towing vessels, supply vessels, standby support vessels, various types of offshore drilling rigs, marine construction barges, cable laying vessels, marine survey vessels, etc. Similarly in the port/terminal sector, various types of tugs and other smaller vessels have been gradually put in place for the development of ports and terminals. The contribution of these types of services to the overall economy has been sizeable.

A thorough assessment of the economic contribution of the shipping industry, and also its contribution to national security, energy security etc. has not been carried out so far, and this report attempts to discuss these issues.

3

Energy and national security

Introduction

Energy Security—the continuous availability of energy in varied forms, in sufficient quantities, and at reasonable prices—has many aspects. It means limited vulnerability to transient or long disruptions of imported supplies, and also the availability of local and imported resources to meet, over time and at a reasonable price, the growing demand for energy. Environmental challenges, liberalization and deregulation, and the growing dominance of market forces, all have profound implications for energy security. These forces have introduced new elements into energy security, affecting the traditionally vital role of a government.

Energy security can be greatly enhanced by energy conservation and efficiency measures, because reducing energy intensity will reduce the dependence of the economy on energy consumption and imports.

New threats to energy security have appeared in recent years. Regional shortages are becoming more acute, and the possibility of insecurity of supplies—due to disruption of trade and reduction in strategic reserves, as a result of conflicts or sabotage—still exists, although it is decreasing.

Of all the energy sources, crude oil and its products are the most versatile, capable of meeting every requirement, particularly in transport. Given the versatility of crude oil and its products and the limitations of other energy sources, energy security would depend more than anything else on the availability of crude oil in the required amounts (by ship or pipeline) to any importing country in the world. The safety of the oil lifeline is, therefore, important. Apart from crude and oil products, India needs vast quantities of natural gas. If pipelines were to be laid across the seas, they would also have to be protected from hostile forces.

The recent past has also experienced substantial growth both in the offshore support sector and the Port terminal support sector. Development in offshore sector has given rise to specialised ships including anchor handling vessels, towing vessels, supply vessels, standby support vessels, various types offshore drilling rigs, marine construction barges, cable laying vessels, and marine survey vessels etc. Similarly in the port/ terminal sector various types of tugs and other smaller vessels have been gradually put in place for the development of different ports and terminals. The contribution of these types of service to the overall economy has been sizeable.

Global energy security

Oil security issues, in fact, emerged in the early seventies with the onset of the Arab oil embargo in 1973 when crude prices jumped from the then prevailing price of $2/barrel to more than $10/ barrel. In all, there have been seven major oil supply disruptions till date when world crude supply fell short by more than 2 million barrels per day (Figure 3.1).

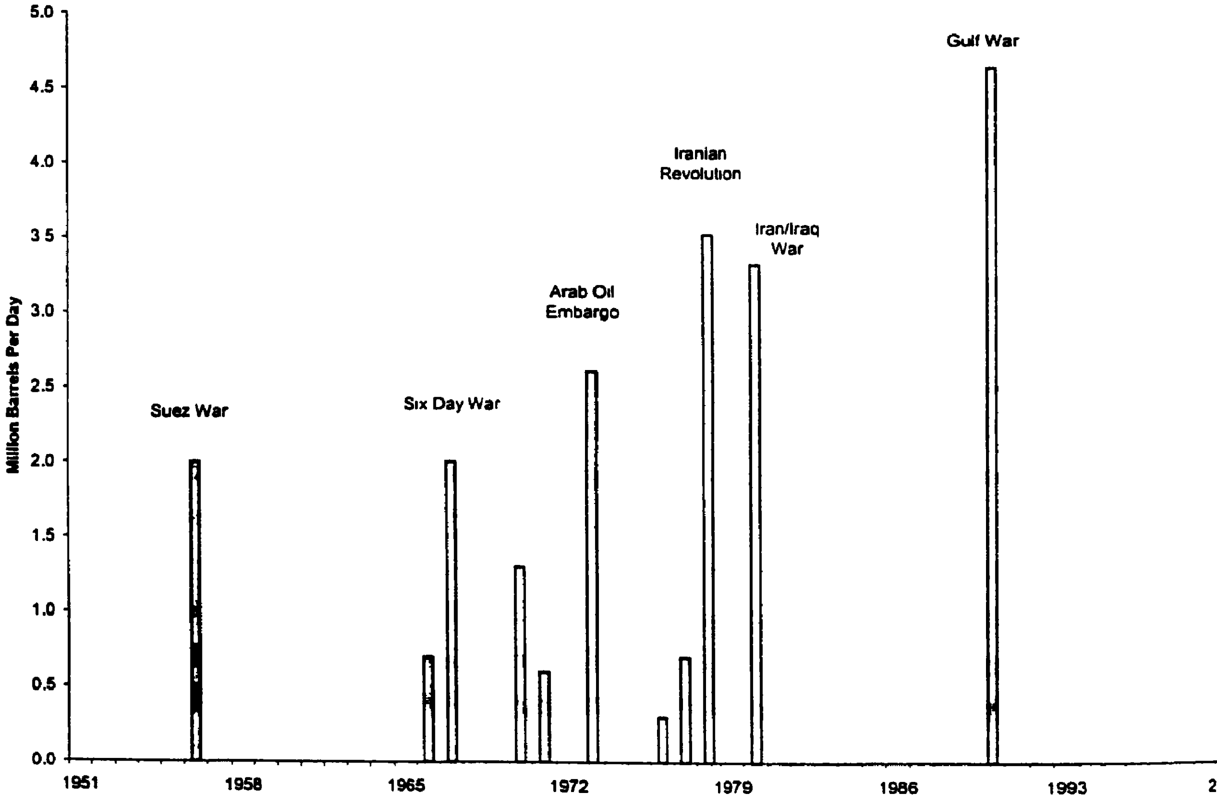

Figure 3.1 World oil supply disruptions

Source TER, 2002

The implications of these disruptions have been significant, especially for the developing countries. It is thus important for countries like India to build up their oil reserves to meet the domestic demand during periods of disruption in oil supply.

Demand-supply of crude oil in India

The importance of a continuous supply of energy resources for economic growth cannot be over-emphasized. In 2001-2002, imports of crude oil accounted for 72.4% of demand, and domestic offshore oil, 13%. In effect, thus, as much as 85% of the country's demand for crude oil was carried by the maritime sector. Only 15% of demand was met by domestic onshore oil production. The gap between demand and domestic production of crude oil is expected to grow considerably over the years, necessitating import of ever-increasing quantities of crude oil.

The share of oil in the country's fuel mix has steadily risen from 25% in 1960s to about 33% in the 1990s. The share of oil in overall energy availability is projected to increase to 40% over the same period. The demand and supply of crude oil is given in Table 3.1.

Table 3.1 India: crude oil demand and supply (in MMT)

Year	Domestic production	Net import	Total demand	Import as % of demand
1990-91	33.02	20.70	53.72	38.53
1991-92	30.34	24.00	54.34	44.17
1992-93	26.95	29.25	56.20	52.05
1993-94	27.03	30.82	57.85	53.28
1994-95	32.24	27.35	59.59	45.90
1995-96	35.17*	27.34	62.51	43.74
1996-97	32.90*	33.91	66.81	50.76
1997-98	33.86*	34.50	68.36	50.47
1998-99	32.70*	39.80	72.50	54.90
1999-2000	32.50*	53.50	86.00	62.21
2000-2001	32.45	74.21	106.6	69.6
2001-2002	32.58	85.39	117.9	72.4

*Includes oil production through private/joint venture companies

Source. Annual Reports of the Ministry of Petroleum and Natural Gas; Central Statistical Organization, Energy Statistics 1999-2000; Centre for Monitoring Indian Economy, Monthly Review of the Indian Economy, January 2000, and The Economic Survey 1999-2000 (2000)

Since our domestic production has failed to keep pace with this rapid rate of growth, our dependence on imported oil has risen from 44% in 1991 to over 70% in 2001 (Table 3.1). In the year 2000/01, India imported 74 MMT (million metric tonnes) of crude oil for a total refinery throughput of 103 million tonnes.

Projected demand for imported crude

The projected demand for imported crude as per the Tenth Plan estimates is given in Table 3.2. It shows that India's dependence on imports of crude will increase substantially at the end of the Tenth Plan Period.

Table 3.2 Projected demand for imported crude (in MMT)

	2002-03		2003-2004		2004-2005		2005-2006		2006-2007	
	Base case	High case	Base case	High case	Base case	High case	Base case	High case	Base case	High case
Imported crude (MMT)	88.2	98.3	111.6	124.2	114.6	142.2	141.1	149.5	145.8	182.2

Source Tenth Plan Working Group estimates

As stated earlier, approximately 55% of India's POL and products are carried by Indian bottoms. In times of war and national emergency, there would be a need for Indian flag vessels to transport POL and products, since foreign flag vessels might refuse to operate in a war zone.

Role of shipping industry

Since India is heavily dependent on oil imports and the shipping industry plays an important role in meeting the demand for crude in India, it is essential for Indian shipping to support the movement of sensitive cargo such as oil, defence equipment, essential commodities etc , so that India holds a strong position in the international political arena. In fact, it is the Indian flag vessels which went into the gulf, despite the war, to keep the oil supply lines flowing into the country, and also for carrying refugees from Iraq and Kuwait. Indian overseas shipping provides a crucial infrastructure to be depended upon at times of need, rather than just an export oriented service sector.

The shipping industry also plays a major role both, in the offshore services and port services sector in catering to the requirement of the oil and gas industry and port/terminal sector. Normally, the end-users in oil and gas exploration and production industry utilize vessels on a time charter basis for normal production/drilling related requirements, and on a lump sum basis for project related requirements. In addition to normal vessels, drilling rigs, and construction barges are employed for supporting specific function in relation to drilling efforts and project related construction work.

Security concerns over energy shipments

The essence of energy security is the ability to maintain adequate supplies of energy resources, such as coal, crude oil, natural gas, and hydro and nuclear power, in the long term, both domestic and imported, at all times and at minimum cost.

A major challenge for India's maritime security is the assurance of sufficient and secure energy shipments from West Asia, with secure vessels in the Persian Gulf and the Arabian Sea, secure from both military and non military threats and uncertainties.

Risk zones in India

The ports of Kandla, Mumbai, Haldia, and Vishakapatnam are important from the strategic point of view given the volume of POL products handled. Thus efforts would have to be taken to protect these port locations from any military attack. In event of any war emergencies, the Indian navy would have to give adequate protection to convoys bringing cargo to these ports.

International experience shows that a number of countries such as Japan, UK and USA have a large percentage of their fleet carrying crude and POL products under their national flag.

In addition to concerns about the security of energy shipments, oil fields scattered along the coastline has also got the security concerns of their own. Employment of too many foreign vessels in and around these oil field installations is a matter of concern as chances of disruption during adverse times are substantially high. Therefore, an appropriate balance between foreign and Indian flag vessels would be necessary to guarantee minimum risk exposure to our oil fields. There are a few high-risk zones in India, where the enemy could strike at Indian ports and convoys carrying cargo to these ports. These are:

Risk zone I : West coast

Along the west coast, Kandla, JNPT and Mumbai ports together handle about 40 millon tonnes/year of crude and POL products which amount to 39% of the total POL products being handled in India.

Risk zone II : East coast

Along the east coast, Chennai, Vishakapatnam, Haldia, and Calcutta ports together handle 41 million tonnes/year of crude and POL products which is 40% of the total POL and products being handled in India.

India would require a 15 day reserve[1], of POL and products and these reserves would have to be carried safely in Indian bottoms.These tasks can only be performed by vessels under the national flag in times of emergency.

National security issues

The Indian shipping industry also plays an important role in national security as a second line of defence. The naval fleet of developed countries like the USA relies on retainer vessels from the merchant navy for its defence requirements. The Indian shipping industry has also offered assistance to the Indian Navy in times of conflict. Thus India would need to rely on Indian flag vessels for help in meeting their strategic defence and oil requirements.

Defence of offshore crude oil and natural gas terminals

The offshore terminals, and associated infrastructure such as submarine pipelines, are critical for the country's energy security. In 1997-98 the domestic production of offshore oil amounted to 21.20 MMT, comprising some 65% of production. This was nearly double the onshore production, and constituted about 30 % of the country's demand.

The Navy has been responsible for the defence of offshore oil installations since 1986, and is implemented through the Flag Officer Offshore Defence Advisory Group (FODAG), along with units from the Air Force and the Army.

The argument that shipping is a second line of defence is familiar. The tangible contribution of shipping to war efforts of a country is rather difficult to quantify due to ever changing complexion of warfare, weapon technology, and the theatre of hostilities. However, the factors that would distinguish Indian defence needs from other countries emanate from the nature of our defense budgets in spite of our having to defend a very long coastline of 7500 k.m. Some of the Navies of the major powers like UK for example are supported by non combatant arms i.e. Royal Fleet Ancillary which provide logistic support services of a wide variety to the Royal Navy in times of conflicts. In a bid to bridge the gap between available budgetary resources and the actual needs, Indian Navy has to unavoidably depend on Merchant Navy resources. It may be difficult to estimate the exact nature of future needs, but it could not be denied that a well diversified merchant fleet, manned by Indian nationals could always be an asset, and could be converted or improvised to provide the crucial logistic multiplier to the defense effort of the country. Chartering foreign vessels with aliens on board would be a risky proposition.

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[1] The 15 day reserve is based on the advise of the National Security Council (2001), which states that any military conflict with India's neighbours would not last for more than 10-15 days.

Little has been done over the years to understand or take action to create the infrastructure for the protection of India's vast coastal areas. The new regime of the oceans enacted under United Nations Convention on the Law of the Sea (UNCLOS), in 1982 has greatly expanded India's jurisdiction as a coastal state, through the concept of the Exclusive Economic Zone (EEZ) and Continental Shelf. With an extensive coastline and numerous Island territories, India is endowed with an EEZ of 2.013 million sq kms. After the delimitation of the continental shelf, the sea area of responsibility of maritime agencies will increase to 2.9 million sq kms, which would be almost equal to India's entire landmass. (FICCI, KPMG, 2002)

A Report of the Group of Ministers on National Security (2001) has recommended that the policy for maritime shipbuilding and acquisition should aim at increasing the share of Indian bottoms ferrying Indian trade from the present low of 27-30 % to atleast 50% in the next five years[2]. It also suggested that efforts should be made to augment the Indian coastal fleet to the projected one million grt in the next 2-3 years. The final decision of the government in this regard is awaited.

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[2] It is difficult to estimate the tonnage required to meet the projected demand of 50% tonnage under Indian flags in next five years, as the data on the unutilized tonnage and tonnage being used for cross-sea trades is not available.

4 Human resource development

Demand and supply of seafarers

A recent study (2000) of the global supply and demand for seafarers carried out by the Baltic and International Maritime Council (BIMCO), and International Shipping Federation (ISF) has estimated that the world- wide supply of officers and ratings is 404,000 and 823,000 respectively, as against the estimated world wide demand for officers and ratings being 420,000 and 599,000 respectively. It also estimated that by the year 2010, there would be a surplus of 255,000 ratings as against shortage of 46,000 officers. Tables 4.1 and 4.2 explain the position more precisely.

Table 4.1 Demand-supply estimate for 2000

Category	Supply	Demand	Balance
Officers	404,000	420,000	-16,000
Ratings	823,000	599,000	+224,000

Source IER 2000

Table 4.2 Future projection of seafarers

Category	Year 2000	Year 2010
Officers	-16,000	-46,000
Ratings	+224,000	+255,000

Source IER 2000

Present situation in India

The demand and supply of seafarers in India as of 2002 is given in Table 4.3.

Table 4.3 Demand-supply estimate for 2002

Category	Supply	Demand
Officers	5504	5253
Ratings	8005	5723

Source Information compiled from various shipping companies

As Table 4.3 suggests, there is no shortage of officers for manning Indian ships in quantitative terms, but the Indian shipping companies are facing problems in getting good quality officers as per their requirements. As is also evident from Table 4.2, there is going to be a global shortage of officers by 2010 and this will have an adverse impact on the availability of officers for operating Indian flagged vessels. This is due to the continuing drift of personnel away from employment on Indian ships to foreign flag ships, lured by higher take home pay packet without being subject to deduction of tax at source.

Taxation of seafarers

To prevent the large-scale drift of qualified and experienced personnel, Sec.6 of I.T. Act was amended in 1990 exempting income received by the Indian crew members serving on Indian ships outside India for 182 or more days in a year from tax. The provision was aimed specifically to help Indian Shipping Companies to retain the services of Indian crew employed on their ships. However, this could not be achieved because of an interpretation of relevant provision (explanation (a) to Sub-Section (1)(c) of Sec.6 by CBDT Circular No.586 of 28-11-1990) to the effect that the period of the seafarers' service when the ships are in Indian territorial waters, is to be treated as period of service in India for the purpose of calculating the period of their service outside India for 182 days in a year. As Indian ships generally operate in Indian trades and Indian ships call frequently at Indian ports, a large number of the crew employed on Indian ships though trading outside India cannot comply with this eligibility criteria to have NRI status, resulting in denial of tax exemption benefits to about 75-80% of seafarers.

However, the Indian seafarers serving on foreign ships for 182 days or more in a financial year are treated as NRIs irrespective of where the ship trades (including in Indian waters). Thus Indian seafarers working on foreign ships are in a more advantageous position to comply with requirements to become eligible to NRI status than when they are employed on Indian ships. Even when they do not comply with requirements to become eligible for NRI status, they are not subject to TDS in India, as the foreign ship owners employing Indian crew are outside the jurisdiction of Indian tax authorities. Thus, there is ample scope for the Indian seafarers employed on foreign ships to escape the tax net.

As a consequence of the above, the drift of floating personnel from Indian to foreign flagship continues unabated. The position of manning shortage on board Indian ships is further accentuated with the implementation of enhanced training standards (Rakesh Mohan 2002).

Indian crew serving on Indian ships operating in the trades outside India sign on foreign going articles of agreement, and sign off when they are discharged. They are thus in service on board the ship during its entire period of foreign trading operations even when the ship transits Indian ports for unloading/loading cargoes. It would be logical to treat the service of the seafarers serving on Indian ships engaged in their foreign trading operations from the time they sign on articles of agreement for the service until they sign off and are discharged as service outside India, including the period for which the ship may call at Indian ports in its itinerary of foreign trade operations. In this regard, Rakesh Mohan committee, 2002 has suggested that this may be suitably clarified by a separate circular modifying the CBDT circular of 28-11-1990 referred to earlier so as to make the intent of the explanation (a) to Sub-Section (1)(c) of Section 6 clear. The date of signing on/signing off articles by the seafarers may be required to be endorsed on their Passport by designated Immigration authorities as authentication of their service outside India.

While it is imperative that tax exemption should be granted to the officers and seamen ratings employed on Indian flag vessels in respect of their income earned during their articled period of employment on board Indian ships engaged in foreign trading operations, the discrepancy in denying status of "Not being Ordinarily Resident" (NOR) to Indian seafarers serving on Indian ships as per sub-section (6)(a) of Section 6 also needs to be rectified.

An Indian seafarer who is not resident in India for 730 days or more during a period of preceding seven previous years, enjoys the status of being "Not Ordinarily Resident" (NOR) under Sec.6, Sub-Section (6)(a). Under this status, Indian Seafarers employed on foreign ships are not subject to tax on income derived from foreign sources while serving overseas irrespective of the duration of the employment. However, their income from an Indian controlled entity, for services rendered overseas under NOR status, is taxable in India as Indian source income. Rakesh Mohan committee report (2002) has recommended that proper parity in this regard needs to be achieved by treating the earnings from Indian shipboard service as not taxable in respect of the Indian seafarers employed on Indian ships eligible as NOR under Section 6, Sub-Section (6)(a) as in case of the Seafarers employed on foreign ships. (Rakesh Mohan 2002). We also endorse the views of the Rakesh Mohan Committee (2002) in this regard.

International experience as given in Annexure 4.1 shows that in countries like Norway, Korea, Singapore , Denmark , Greece and UK, there are various tax incentives received by the seafarers and accord special treatment to them.

International wage scales

The 1999 ISF survey would show further reduction in the average earnings of seafarers with a global average of US$1,318, accounting for only three-quarters of the 1992 average. The nationality composition above and below the overall average was still evident in 1999. There were large differences between the bottom and the top average seafarers earnings, with the top average earnings in the United States (US$5,5550) being 16 times higher than the lowest average earnings in Papua New Guinea (US$342).

Country wise wage rates for Brazilian, Bulgarian, Filipino, Indonesian, Latavian and Russian seafarers have exhibited no significant change in absolute terms while Bangladeshi, Burmese, Chinese, Hong Kong, China, India and Polish seafarers monthly salaries increased between 25% and 91% (in absolute terms). The highest pay rate increase was that of the Chinese (91%) which increased from US$ 381 in 1992 to US$ 726 in 1999. On the other hand, an analysis of the different national average monthly earnings of seafarers between 1992 and 1999 shows that, regardless of nationality, average wage rates in absolute terms declined during this period. The seafarers from the developed countries were particularly affected as shown in Table 4.4.

Table 4.4 Decline in average monthly earnings for seafarers

Country	Decline in average monthly earnings of seafarers in developed countries (1992-1999) (%)
Australia	65
Japan	53
Germany	53
Belgium	51
Denmark	43
Netherlands	49
Portugal	26
France	14

Source ILO 2001

Retirement age

Traditionally, seafarers used to serve until the age of 55-60 years. With the growth in technology and its continuous assimilation in shipbuilding and navigation, coupled with strenuous work arising out of compliance with various rules and regulations, seafarers are leaving sea career at an early age. The trend has gathered momentum due to the availability of an increasing number of marine jobs on shore. This trend is further aggravating the problem of shortage of seafarers.

Indian wage scale

The average number of officers and ratings on Indian ships as compared to foreign ships is given in Tables 4.5 and 4.6.

Table 4.5 Number of ratings per ship

	Indian ships	Foreign ships
Bulk carriers	15	12
Off shore vessels	7	7
LPG carriers	20	12
Product tankers	15	12
Crude tankers	13	8

Source Information compiled from various shipping companies

Table 4.6 Number of Officers per ship

	Indian ships	Foreign ships
Bulk carriers	15	10
Off shore vessels	8	8
LPG carriers	15	11
Product tankers	15	11
Crude tankers	9	7

Source Information compiled from various shipping companies

The average net pay (after deduction of taxes) of Indian officers and ratings as compared to foreign vessels is given in Table 4.7. Seafarers employed on Indian ships enjoy several long-term benefits such as gratuity, medical facilities, subsidized housing loans, etc.

Table 4.7 Comparison of monthly wages

	Indian ships		Foreign ships	
	Officers	Crew	Officers	Crew
	(net pay $/ month)		($/ month)	
Bulk carriers	1771	356	3500	400
Off shore vessels	1896	302	2800	532
LPG carriers	1571	326	3000	375
Product tankers	1540	367	3000	375
Crude tankers	2079	367	3500	375

Source Information compiled from various shipping companies

Impact on Indian shipping industry

Emergence of the flag of convenience (FoC) vessels and international ships in the late eighties again increased the demand for Indian seafarers. National flags placed severe restrictions on employment of foreign seafarers as well as on their wage levels. The flag of convenience does away with such restrictions, and opens up vast opportunities for Indians in shipping companies of developed nations. The ship owners could now hire Indians at lower wage levels vis-à-vis OECD seafarers, without compromising on quality. However, competition from developing countries such as the Philippines, Indonesia, China and other liberalized Eastern Block of socialist countries has also increased simultaneously over the last few years.

In an era of fierce global competition, falling freight rates, increasing costs, and dwindling margins, ship owners have been constrained to cut operating costs, all of which has meant to economizing on manning cost. This often leads to employment of seafarers from developing countries with obvious choice from Indian sub-continent, who demand lower salaries and are better skilled along with good knowledge of English language.

Interestingly, the average wage bill of an Indian ship owner is more than his overseas counterparts as reflected in Table 4.8.

Table 4.8 Comparison of total wage bill per month per ship

	Indian ships ($/ month)	Foreign ships ($/ month)
Bulk carriers	45883	39,800
Off shore vessels	24683	26,124
LPG carriers	42979	37,200
Product tankers	40857	37,200

Source Information compiled from various shipping companies

The reasons for high wage bill for Indian ship owners as compared to foreign ships are:

1. Seafarers on Indian ships are employed on a permanent basis and enjoy long term benefit such as gratuity, medical facilities, subsidized housing loans, etc.
2. Higher manning norms for Indian ships as compared to foreign ships. While the DG shipping prescribes manning norms to be followed by Indian shipping companies and trade unions, the unions often enter into separate agreements with ship owners, which force them to employ more persons per ship. Thus, the unions frame their own manning norms which are invariably higher than those prescribed by the Government, and than those prevailing in other countries such as China, Greece, Japan, and Hong Kong.

The single differentiating factor between the two salaries is the tax-free status enjoyed by Indian seafarers on foreign flagships, which is driving them away from home. Their excellent skills and good command over the English language make them an attractive resource vis-à-vis seafarers from other developing countries. It is estimated that about 12000 Indian officers and 20000 ratings are working on foreign ships (Srivastava 2000). There are other estimates that about 16000 officers and 20000 ratings are working on foreign ships. (INSA 2001-2002). Based on estimates given in INSA 2001-2002, and assuming that about 85% of their earnings flow back to India in the form of foreign exchange earnings, the Indian officers and ratings on foreign ships earn annually approximately 250 million US$ and 55 million US$ for India respectively.

Taxation

According to Indian law, Indian shipping companies have to deduct tax from the salaries of the floating staff. The amounts paid in 2000-2001 and 2001-2002 are indicated in Table 4.9 and has been estimated for four major companies representing 64% of the tonnage handled by the country.

Table 4.9 Tax deducted at source and paid to the government for floating staff salary

	2000-2001	2001-2002
TDS paid for floating staff salary (million Rs) for 64% of tonnage	639.8	511.6
TDS paid for floating staff salary (million Rs) for 100% of tonnage	998	798

Source Information compiled from various shipping companies

If the Government of India were to exempt the Indian seafarers from payment of these taxes, it would lose Rs 798 million annually; but this could also help in avoiding the loss of qualified, trained officers to foreign flags. The figures for TDS paid for years 2001-2002 are lower than the figures in 2000-2001 due to factors such as a difference in tax rates, reduction in tonnage, and change of number of seafarers falling in the NRI status.

Maritime education in India

Formal maritime training in India commenced in 1927 when the government commissioned the 'Dufferin' as a pre-sea training ship for deck cadets in 2002, the formal maritime training in India has completed 75 years of its existence.

Training institutes

In 1950, the government set up three pre-sea training institutions for ratings - the TS Bhadra in Calcutta, the T S Mekhala in Vishakapatnam, and a shore-based institution called T S Naulakshi in Gujarat. These were owned and operated solely by the government. In the early eighties, a severe recession in the industry, led to a surplus of ratings who then had to wait several months, sometimes nearly a year, before getting re-employed. In 1982, the Government abolished these three institutions, and allowed the private sector to conduct pre-sea training in 1992.

The government has trained about 7500 nautical cadets and about 5400 engineering cadets through these institutions so far (2001) and continues to do so at the rate of over 400 deck cadets and over 350 engineering cadets per year. Table 4.10 shows the current picture.

Table 4.10 Training Institutes in India

	Number of institutes	Approximate annual capacity
Pre-sea training for navigating cadets	8	1500
Pre-sea training for engineer cadets	15	1200
Pre-sea training for ratings	9	2400
Total	32	5100

Source Bames, 2000

Major issues

Short manning

A reduction in the number of officers on board to only Chief Steward, Purser, and Radio Officer has increased the load on the deck department, especially the Master. While the IMO and ILO stipulate the maximum number of permitted hours of work for officers and crew, they are silent about the Master. A reduction in the number of crew means that a higher degree of training is required and that there is more pressure on those aboard. The absence of cadets or trainee engineers makes the shortage of manpower on board even more acute.

Shortage of berths on board ships

On many foreign flagships, especially the new ones, there is no cabin space or lifeboat capacity for cadets or trainee engineers. It appears that their sources of supply must be inducement of trained officers of other companies, by offering higher wages. Whenever the employer of Indian seafarers purchases a second accommodation for trainees. This means that cadets and trainee engineers have to wait for, and between, ships.

More training ashore

Training on land is generally for longer periods than experience on board. A shift is already noticeable in the graduate engineer entry scheme where the employer has two alternatives:

a) Six months training ashore + six months on board as trainee engineer + six months on board as Assistant Watch keeper or

b) One year training ashore + six months on board as Assistant (Watch keeper)

Most employers now tend to opt for the second alternative in which more time is spent training ashore than on board.

Courses and examinations awarding certificates of competency are now taking unusually long periods of time. The procedural bottlenecks in the certification system have caused a lag between pre-examination courses, examination and the declaration of results. It takes about 12 months on average to obtain a Second Mate's (FG) Certificate, and 14—15 months for a Chief Mate's (FG) Certificate which earlier took 4—5 months. This has led to officers taking prolonged leave which is further straining the already low-base of seafarers for manning Indian vessels. With full implementation of STCW 95 (Standards of Training, Certification and Watchkeeping for seafarers) drawing close, a large number of seafarers are to be trained which will effectively reduce the manpower available.

From the Indian ship owners point of view the problem will be further compounded by the ruling that Indian ship owners can employ only Indian seafarers.

Indian ships owned by Indian ship owners provide a base for on board training of personnel, which is not the case with foreign ships operating on Indian seas. According to the figures available from various companies accounting for 73% of the tonnage, the number of shipping personnel trained since 1997 are given in Table 4.11. Therefore, if the Indian shipping companies were to exit from the Indian shipping industry scene, the platform provided by the Indian ships would be missing which would seriously hamper the training process of Indian cadets, junior engineers, and seamen.

Table 4.11 Number of personnel trained on Indian ships since 1997

Deck cadet	Engine cadet/junior engineer	Trainee seamen
560	884	1800

Source Information compiled from various companies

5

Economic contribution of the Indian shipping industry

The Indian shipping industry is important not only from the points of view of energy and national security but also in the form of economic contribution to the Indian economy.

Economic importance of shipping

India has a coastline of nearly 7500 km with 12 major ports and more than 150 minor and intermediate ports. Shipping is the largest and the most important mode of international transportation. As discussed earlier, around 95% of Indian overseas trade in terms of volume and 68% by value is sea-borne. The role of shipping in the promotion and facilitation of a country's trade and economic development has been recognized by maritime countries the world over.

Since freight costs are an important component of the overall price of exports and imports, the competitiveness of Indian products depends to a large extent, on the availability of low cost shipping facilities. According to an UNCTAD study, the international freight component of India's international trade comprises 9%–10% of the delivered cost of goods. The presence of national shipping helps in moderating both import and export freight rates. Apart from this, the shipping sector has other very important links to the economy. This sector has created a demand for high quality trained manpower. Indian-trained seaboard personnel have become internationally acceptable: Indian officers are in great demand. The growth of Indian shipping contributes substantially to the training and employment of seafarers both for Indian and foreign ships and for the development of maritime skills. Another important linkage is the shore-based infrastructure and service sector, which includes ports, ship repair, ship agents and chandlers, ship supplies, regulatory authorities, insurance, banking, etc.

The aggregate value of the country's trade (both imports and exports) for 2001/02 stood at US$ 94.97 billion (CMIE, 2002). Considering that around 68% of India's trade (i.e. US$ 64.57 billion) by value moves by sea and the freight component in the cif cost is in the range of 10%, a market worth 6.45 billion US$

is available to Indian shipping companies from Indian overseas trade alone. However, this share has been declining over the past years.

The relationship between Gross Value Added (GVA) from the Indian shipping industry, Gross Registered Tonnage (GRT) of the industry and the Gross Domestic Product (GDP) of the economy has been estimated.

Gross value added

Gross Value Added (GVA) of a particular industry denotes its contribution to the Gross Domestic Product (GDP[1]) of the country. GVA in economic terms refers to the total payment to factors of production, namely: wages, interest, profits and rents. It also includes capital consumption allowance and indirect taxes. In other words, it is simply output minus intermediate consumption. The value addition that the Indian shipping industry makes to the economy has been estimated for the period 1990-2002. This is the direct impact that the industry has on the economy.

The estimation has been done by analyzing the profit and loss accounts of the major players (7–8 companies comprising around 70% of the industry's tonnage) in the shipping industry. The GVA for a given year for the entire industry has been estimated on a prorata basis (as per the methodology used by the Central Statistical Organisation, CSO, India). The GVA has been estimated at constant prices (1993/94 prices), i.e. the influence of inflation from the base year to the current year has been removed. Thus,

$$GVA_{shipping} = \text{operating surplus} + \text{compensation to employees} + \text{depreciation} \quad \text{....Equation (1)}$$

The operating surplus in the above equation is the sum of income from property and income from entrepreneurship, and consists of rent, interest, and profit. Payments made to employees in the form of wages and salaries in cash and in kind, contribution to social security schemes, private pension, family allowance, casualty insurance, and similar schemes to their employees are included in compensation of employees. Depreciation is allowance made for capital consumption.

The estimated GVA for the specified years is given in Annexure 5.1. The GVA from the shipping industry increased from Rs 9195 million in 1990/91 (at 1993/94 prices) to Rs 15242 million in 2001/02.

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[1] GDP is the sum of GVA of all sectors of the economy

average was taken. This works out to be Rs 2211 per grt per year. This implies that on an average, the value added by the Indian shipping industry in a given year to the economy per unit of grt to the economy is Rs 2211.

Total impact of the shipping industry

An important measure of the impact of a particular industry or sector on the economy has traditionally been the use of 'multipliers' - representing the impact of the expenditures of the industry, plus the additional spin-offs created by the industry's activities. The ideal way to estimate the multiplier impact of the Indian shipping industry would have been through the use of input-output (IO)[b] tables. However, this approach cannot be used for estimating the multiplier impact from the Indian shipping industry. This is because the information available in the Indian input-output table (2000) is at a very aggregate level. The shipping sector is included in the CSO data set under 'Other transport services' which comprises of water, road and air transport services. Information at a disaggregate level is not available. Thus it would not be possible to estimate the multiplier impact of the Indian shipping industry from the I-O table.

In our study, the elasticity of GVA shipping to GDP of the economy has been estimated. Elasticity measures the responsiveness of GDP to a given change in the $GVA_{shipping}$, i.e. percentage change in the GDP in response to a given percentage change in the $GVA_{shipping}$. This has been established by estimating the following relationship:

$$\ln GDP_{economy} = \phi + \gamma \ln GVA_{shipping} + U \qquad \text{...Equation (2)}$$

ϕ and γ are the coefficients that have to be estimated and U is the random disturbance term. γ is the slope coefficient and measures the elasticity of GDP with respect to GVA shipping.

The above relationship has been established based on the estimated GVA from the shipping industry at current prices and the GDP for the Indian economy as reported by Central Statistical Organisation of India (CSO) at current prices for the years 1990-2002. The details of the estimated relationship are given in Annexure 5.2.

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[b] An IO table describes the flows among the various sectors of the economy. It represents the value of economic transactions in a given period of time. Transactions of goods and services are broken down by intermediate and final use. An IO table also shows the cost structure of production activities: intermediate inputs, compensation to labour and capital, taxes on production. Thus the IO table gives the productivity of each industry by indicating the inputs that are required from various other industries to produce a unit of output. This table is used to estimate the multiplier impact that a particular industry has.

This relationship is based on the "ceteris paribus" assumption, i.e. the change that takes in place in GDP economy as a result of a change that takes place in GVA shipping while keeping all things other than GVA shipping constant. One of the limitations here is that the number of observations used to arrive at this relationship is very low. In order to estimate any meaningful relationship, the recommended minimum number of observations is 25-30. Secondly, there exists a very significant time trend in both the dependent and independent variables, ($GDP_{economy}$ and $GVA_{shipping}$). This implies that if time is taken as another independent variable in Equation 2, the change in GDP due to change in GVA alone would come down significantly. Further, it would also be more appropriate to eliminate the price effect (i.e. inflation) in both the variables in order to arrive at a meaningful relationship. Hence, one cannot draw any significant conclusion from the above analysis using Equation 2.

Therefore, another set of relationships has been estimated in which time has been also taken as an independent variable.

$$\ln GDP_{economy} = \alpha + \beta\, Time + \chi \ln GVA_{shipping} + \eta\, Dummy + U \qquad \text{...... Equation (3)}$$

Where α, β, χ and η are the coefficients to be estimated. U is the random disturbance term. The Dummy variable is included in the relationship to take into account the liberalisation that had taken place in the Indian economy after 1990. The coefficient χ measures the elasticity of GDP with respect to GVA shipping.

The GVA data that has been used for these relationships is CSO data (from 1980 onwards) on the Gross value added from the Ocean and Coastal water transport at current prices. This was deflated to arrive at the GVA at 1993/94 prices.

The details of the estimated relationship are given in Annexure 5.2.

Another equation was derived to examine the relationship between GVA and grt in the Indian shipping industry:

$$\ln GVA_{shipping} = \theta + \rho\, Time + \tau \ln GRT + \mu \ln GVA_{shipping}(-1) + \nu\, Dummy + U \qquad \text{...Equation (4)}$$

Where θ, ρ, τ, μ and ν are coefficients that have to be estimated. Ln $GVA_{shipping}(-1)$ is the natural logarithm of lagged (by one period) $GVA_{shipping}$. U is the

Where θ, ρ, τ, μ and ν are coefficients that have to be estimated. Ln GVA $_{\text{shipping}}(-1)$ is the natural logarithm of lagged (by one period) GVA $_{\text{shipping}}$. U is the random error term. The details of the estimated relationship are given in Annexure 5.2.

Impact on GDP

Equations 3 and 4 relate GDP of the economy and GVA of the shipping industry and GVA shipping and GRT of the Indian shipping industry, respectively. The link between the GDP of the economy and the GRT of the shipping industry needs to be established, i.e. the impact on GDP due to a given percentage change in GRT.

χ gives the elasticity of GDP economy with respect to GVA shipping (from Equation 3) and τ measures the elasticity of GVA shipping with respect to GRT (from Equation 4). These can be used to establish a relationship between GDP economy and GRT of the shipping industry in the following way:

$\chi = \partial \ln \text{GDP economy} / \partial \text{Ln GVA shipping}$ ....Equation (5)

$\tau = \partial \ln \text{GVA shipping} / \partial \text{Ln GRT}$ ....Equation (6)

$\psi = \chi * \tau = \partial \text{Ln GDP economy} / \partial \text{Ln GRT}$ ....Equation (7)

ψ thus measures the elasticity of GDP economy with respect to GRT of the Indian shipping industry. The value of ψ works out to be 0.0068 (details of the estimation are given in Annexure 5.2). This implies that a 1% change in grt brings about a 0.0068% change in the GDP of the economy. If it is assumed that the cost of a 45000 grt ship is US$ 15 million (as has been assumed in the Rakesh Mohan Committee Report, p. 91, Annexure 3.9), i.e. Rs 735 million (taking 1 US$ = Rs 49), then the cost per GRT works out to be Rs 16.33 thousand. One percent change in grt of 2002 is 69.40 thousand grt. This one percent grt would cost Rs 1133.53 million (using the cost per GRT value of Rs 16.33 thousand). The impact of a percentage change in grt on GDP of the economy is Rs 902.65 million (using the value of ψ, 0.0068%) for the year 2002. The benefit accruing from the grt that has been bought would be spread over the lifetime of that particular vessel. These estimates of the cost of grt and impact on the GDP have been calculated using the grt and GDP values of the year 2002. However, they would change with changes in the grt and GDP values.

Comparison with another industry would have helped but it is difficult in the absence of data, further, similar analysis has not been done for another Indian industry. Nevertheless, the above analysis shows that the contribution of the Indian shipping industry to the economy is positive.

Competitiveness of the Indian shipping industry

Ship finance

The shipping industry is a capital-intensive one. The cost of acquiring new vessels is very high with new tankers costing anything between $35 million and $100 million depending upon its size. Lack of adequate price-competitive sources for financing ships poses significant challenges to the Indian industry. It results in the postponement of ship acquisition programmes for companies or their going in for older and cheaper vessels, which are less, cost efficient.

Ship acquisition costs are financed primarily through External Commercial Borrowing (ECBs), up to 60% to 80%. Shipowners belonging to countries with a high sovereign rating are in a much better position to get ECBs at more favourable terms as compared to Indian shipowners. As a result, the weighted average cost of capital for the Indian companies is higher and it inhibits companies from going in for ship acquisition. In addition, the Union Budget, 2000/01, made external commercial borrowing costlier by about 20% with the withdrawal of the exemption on withholding tax on interest payment on such loans. Despite the double taxation avoidance agreements, the foreign lenders resort to grossing up of the withholding tax in the interest charged on their lending. The burden on account of the withholding tax falls entirely on the shipping companies who cannot pass these increased costs to users of their services. Also, most foreign lenders operate from tax havens — countries where the double taxation avoidance agreements are not relevant. The interest costs have thus increased by 20%-25%, adversely affecting the competitiveness of Indian shipping companies. An illustration of the breakeven cost of a newbuild Aframax tanker registered under Indian flag vis-à-vis free flag as discussed in the Report of the Working Group on Shipping for the Tenth Five Year Plan is given in the Table 5.1

Table 5.1 Breakeven cost of Indian Flag vis-à-vis Free Flag (Example: Newbuild Aframax Tanker)

	Unit of measure	Free Flag Registry	Indian Flag Registry
Price of new building $ mm	US$ mm	42.50	42.50
Customs duty (now not applicable)	US$ mm	0.00	0.00
Total Capital Cost	US$ mm	42.50	42.50

	Unit of measure	Free Flag Registry	Indian Flag Registry
Loan @ 70% of Market Value	US$ mm	29.75	29.75
Average LIBOR during Tenor	% p.a	5.00%	5.00%
Interest rate spread	% p.a	1.00%	1.00%
Withholding Tax @ 20%	% p.a	0.00%	1.20%
Effective Interest Rate	% p.a	6.00%	7.20%
Loan Tenor	Years	8	8
Operating Days per Year	Days	350	350
Fixed Operating Costs (Avg)	US$ p. dy	6000	6000
Residual Value after 8 years	US$ mm	20.00	20.00
Initial Equity Invested	US$ mm	12.75	12.75
Post-tax Return on Equity (ROE)	% p.a	12.00%	12.00%
Provision for Corporate Tax (22% of ROE)	% p.a	0.00%	2.64%
Required Pre-Tax ROE	% p.a	12.00%	14.64%
Required Average Breakeven TC	US$ p. dy	21,504	23,095
Higher Breakeven for Indian Flag	US$ p. dy	Base	1,591
Disadvantage to Indian Flag	%	Base	7.4%

Note Fixed Operating expenditure includes amortised Drydock & Special Survey Costs

Source Planning Commission 2001

There are certain components of the operating cost, which place the Indian shipping companies at a disadvantage vis-à-vis their foreign counterparts.

Insurance

Indian shipowners are statutorily required to insure their fleet for hull and machinery with Indian insurance companies. The premium rates (fixed by the tariff advisory committee) have traditionally been much higher than those prevailing internationally.

Depreciation

The shipping industry, despite being an indispensable sector, has not been given the status of an infrastructure industry. Nor has it been given export industry benefits, given the fact that it provides export of a service (through global cross trades). The rate of depreciation that is applicable in the shipping industry is 25%. By contrast, transport vehicles like trucks and cars are permitted 40% rate of depreciation. There is a strong case for removing this inequity by raising the depreciation rate to 40% as it would help companies build up reserves in profitable years to finance fleet replacement and growth.

Taxation

Tax regime for Indian seafarers

The Indian taxation regime, both for the companies and ship personnel, also imposes additional costs. As has been mentioned in the last chapter, the Indian officers and crew employed on Indian flagged vessels (for a period less than 183 days) are subject to income tax. On the other hand, there is no such taxation requirement on foreign flags making employment on these flags more attractive. As a result the Indian shipping companies have to gross up the salaries of their ship personnel to compensate for the tax burden. Although the total wage bill for an Indian shipping company comes out to be marginally higher than that for a foreign shipping company, the former also loses out on the experience level of its crew.

Tax regime for Indian shipping companies

The Indian shipping companies are subject to corporate tax (35%). The effective rate of taxation in the past years, worked out to be around 22% (from 2002/2003 onwards with the benefits under the Section 33 AC of Income Tax Act, 1961, effective rate of taxation works out to be 7.5%), among the highest in the global shipping industry where around 94% of the world shipping is under a very low tax regime. About 70% of world shipping is owned by a group of countries following the conventional tonnage tax system under which shipowners have the benefit of paying a very low and fixed amount of tax. Around 15% of world shipping is owned by a group of countries, which offers a corporate tax along with optional tonnage tax system where the tax liability in either case works out to be 1% to 2% of the taxable income.

Also, there exists a customs duty of 5% and special Additional Duty of 4%, which is applicable to the import of dredgers/tugs, pusher craft and floating docks/cranes/production platforms.

An illustrative benchmarking of the cost structure of Indian companies with international companies as given by CRISIL Rating Scan (Singh, 2002) is given in table 5.2. Here the profitability of a 75,000 dwt Panamax bulk carrier aged less than five, owned and registered in India has been compared with one owned and registered outside India.

Table 5.2 Cost comparisons

$/day	International**		India*	
TCY	$10,000		$10,000	
Crewing	$1,815.00	$1,633.93	16.34%	18.15%
Insurance H&M	$230.00	$273.21	2.73%	2.30%
Insurance P&I	$170.00	$170.00	1.70%	1.70%
Repairs and maintenance	$1,495.00	$1,500.00	15.00%	14.95%
Admin***	$605.00	$478.19	4.78%	6.05%
Total operating cost	$4,315.00	$4,055.33	40.55%	43.15%
EBDIT	$5,685.00	$5,944.67	59.45%	56.85%
Depreciation	$2,444.44	$2,444.44	24.44%	24.44%
Interest & finance charges	$2,353.00	$2,994.00	29.94%	23.53%
EBT	$888.00	$506.00	5.06%	8.88%
Tax	$0	$101.00	1.01%	0.00%
PAT	$888	$405.00	4.05%	8.88%

Source Singh, 2002

*Indian companies

**UBS Warburg equality report

***Administrative costs are onshore costs, and are therefore lower in India

Assumptions

Average Time charter yield (TCY) for a 75,000 dwt Panamax has been taken as:
TCY = net voyage revenue/days required to complete the voyage
Net voyage revenue = Total freight hire - direct operating costs (Fuel and port related)
Insurance includes two elements, the first related to hull and machinery and the second to protection & indemnity (P&I)
The value of the Panamax is assumed to be $22 million financed in a debt to equity ratio of 70:30
Interest rates on ECB are assumed to be 7% for India and 5.5% abroad
The Panamax is assumed to have a life of 25 years, and depreciation is charged on a straight line method basis
No. of operating days are assumed to be 360 for the calculation of interest charges and tax/day

Thus it is clear that the Indian shipping industry suffers from some inherent disadvantages, which deprives it of a level playing field in the global market. This disadvantage is even greater for more capital-intensive segments such as containers and tankers due to their higher financing costs.

In order to allow the Indian shipping industry to grow unhindered, it is imperative that a conducive investment and operating environment be created. The need of the hour is not to provide sops or financial support but rather to create a level playing field for the Indian shipping industry to be able to compete in the global shipping market.

In view of this, the Rakesh Mohan Committee (Rakesh Mohan 2002), has recommended an optional tonnage tax scheme to provide a conducive fiscal regime. This scheme would provide additional disposable resources to Indian shipping companies, which could be used to acquire additional vessels, expand, and modernize their fleets.

The Committee recommended that a separate Tonnage Tax Act be drafted on the basis of the UK Tonnage Tax Act under which a shipping company's liability is determined by the tonnage of vessels or its fleet rather than the profit generated by its commercial operations. The Committee has recommended a 'modified tonnage tax system' in which tonnage tax is obtained by multiplying the net registered tonnage (NRT) of the vessel with the prescribed rate to compute a notional daily taxable income. This value is then multiplied by the prevailing corporate tax rate and the number of days the ships operate in a year yielding the actual tax liability. The Committee has used a weighted average notional income rate of 3 countries (UK, Germany and the Netherlands), which use this method. The following notional profit schedule per day per nrt of the vessel has been recommended by the Committee.

Table 5.3Notional profit schedule per day per 100 nrt

	In British Pound Sterling	In Indian Rs. (Conversion -Rs.69)
Upto 1000 nrt	0.56	40
1000 - 10000 nrt	0.43	30
10000 - 25000 nrt	0.34	25
25000 nrt and above	0.24	15

Source Rakesh Mohan 2002

Since the taxation level in the suggested scheme is much lower (2%–3%) under the tonnage tax vis-à-vis the prevailing rate, i.e. from 2002/03 onwards, of 7.5%[2] of the effective taxation (details given in Annex 5.3), it becomes relevant to assess the revenue implications of adopting the tonnage tax scheme vis-à-vis the existing corporate tax regime for the government.

The implications on revenue of tonnage tax vis-à-vis corporate tax have been examined in the following sections.

Tonnage projections

The basis of tonnage projections is the age profile as discussed earlier in Chapter 2. It has been assumed that additions to the Indian fleet would be at the same rate as at the end of the Ninth Plan Period, and the rate of deletion of ships has been based on the present age profile of ships. The Working Group on Shipping for the Tenth Plan has estimated that about 2.75 million grt would be deleted by 2007, and to maintain a steady growth and meet the growing trade requirements, an additional tonnage of 3.25 million grt would be needed. This would require an investment of 3.3 billion US$ (for adding 156 ships).

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[2] This is the effective corporate tax rate as introduced from the current financial year. For calculations it has been assumed that the rate of taxation remains at 7.5% for future.

Based on these assumptions the tonnage has been projected for the year 2027, the details of which are given in Annexure 5.5.The tonnage would decline to 5.6 million grt by 2007 and 4.6 million grt by 2027 as shown in Figure 5.1

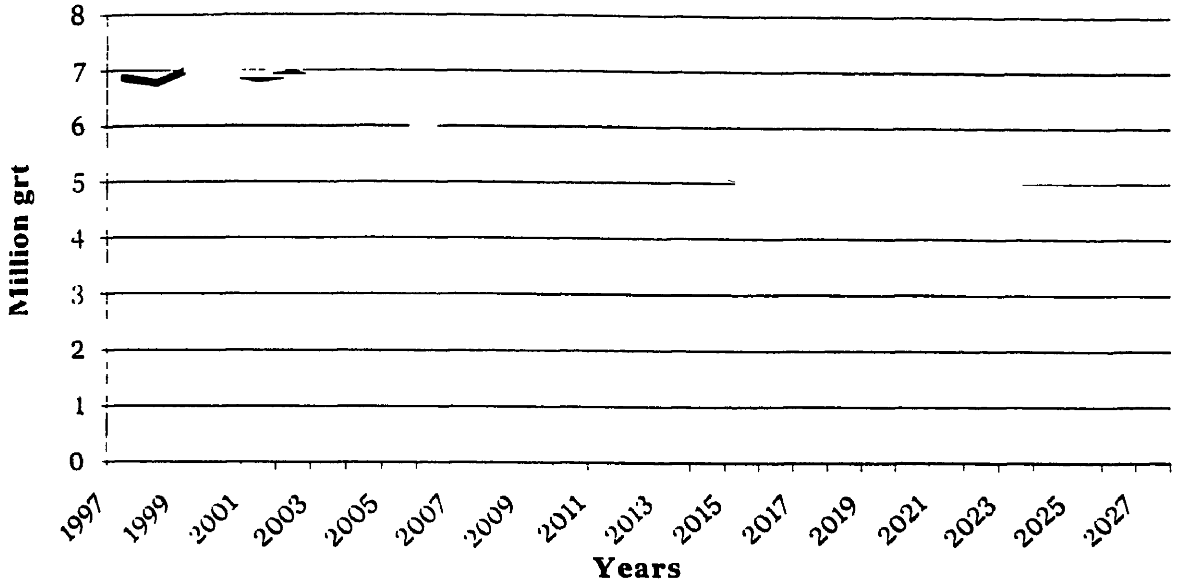

Figure 5.1 Fleet size projections

Based on the tonnage profile, the corporate tax which companies would have to pay to the government has been estimated below.

Corporate tax

The shipping industry today pays a corporate tax under the Income Tax Act. The tax paid by industry during the Ninth Plan is given in Table 5.4. The Table is an extract of data collated from 18 Indian shipping companies owning 76% of the Indian shipping fleet.

Table 5.4 Taxes paid by shipping industry - 76% of total Indian fleet (in Rs. lakhs)

	2000/01	1999/00	1998/99	1997/98	1996/97
Profit before tax	87,369.37	33,935.93	42,231.31	53,255.08	58,608.68
Provision for tax	20,875.72	6,510.12	8,335.17	9,303.57	8,677.59
Net profit	67,709.69	26,956.47	34,686.25	47,803.99	52,313.57
Percentage of tax to PBT	23.8%	19.18%	19.74%	17.52%	14.81%

Source INSA 2002

The corporate tax for the entire industry has been worked out on a pro rata basis from the figures given in table 5.7, and the estimated sum paid over the past years by the entire industry (100% of tonnage) to the government is given in Table 5.5.

Table 5.5 Taxes paid by the entire Indian shipping industry: 100% of total Indian fleet (in million rupees)

	2000/01	1999/00	1998/99	1997/98	1996/97
Provision for tax	2747	857	1097	1224	1142

Based on the assumptions as given in Annexure 5.6, the corporate tax has been estimated using the following relationship:

Average profit of the shipping industry = Average PBT per grt per day × No. of days × Total grt.... ...Equation 8

Corporate tax estimates = Average profit of the shipping industry × 7.5% (Effective rate of taxation from the current financial year 2002-2003) .... Equation 9

Details of corporate tax estimated are given in Annexure 5.5.

Tonnage tax vs Corporate tax

In the following section, the revenue earnings of the government under the tonnage tax scheme have been compared to the revenue earnings under the existing corporate tax regime. The tonnage and the estimated corporate tax have been summarized in Table 5.6.

Table 5.6 Tonnage and corporate tax estimated

	1997	2001	2007	2011	2016	2020	2027
Tonnage (million grt)	6.87	6.84	5.63	5.46	5.04	4.96	4.82
Corporate tax (million rupees)	1224	2747	453.1	439.2	406	400	388

Estimation of tonnage tax

To estimate tonnage tax, it has been assumed that the tax scheme will be introduced and implemented from financial year 2003 onwards. The assumptions used for estimating tonnage tax are given in Annexure 5.7.

For estimating the number of ships, a vessel size of 30000 nrt or 45000 grt has been assumed. The number of ships were calculated using the following equation:

$$\text{Number of ships} = \frac{\text{Total projected grt of shipping industry for a year}}{45000}$$

...Equation 10

In Annexure 5.7 tonnage tax for a sample ship of size (45,000 tonnes) has been calculated. This figure was then multiplied by the total number of ships to get an estimate of the tonnage tax for the entire industry.[3]

Estimation of shipping reserve fund

Under the tonnage tax scheme, shipping companies would have to put 20% of their book profits into a reserve fund, which would be utilized for ship acquisition within 8 years. Using Equations 8 and 11, the amount required to be put into the shipping reserve fund (SRF) by the entire shipping industry has been calculated.

$$\text{Amount put in shipping reserve fund} = \frac{\text{Average PBT} \times 20}{100}$$

....Equation 11

Also using the assumptions in the Rakesh Mohan Committee's report (2002) that ship owners would invest 30% of the amount from shipping reserve fund and 70% from outside, the total amount available in the shipping reserve fund for ship acquisition has been estimated. If one assumes that cost of a ship (45,000 tonne vessel) is 15 m US$, the number of vessels and thereby tonnage acquired and added to fleet every year can be estimated (detailed in Annexure 5.8). The tonnage added and tonnage tax paid during 2003-2027 are summarized in Table 5.7[4] (for details see Annexure 5.8). It is clear from the table that there would be a net addition of 1.09 million grt in 2002- 2027 as compared to a net loss of 2.12 million grt during the same period in the corporate tax scenario as shown in Table 5.6.

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[3] As per the Rakesh Mohan Committee's recommendations, a period of two years should be given to the shipping companies to choose either tonnage tax or the modified tonnage tax scheme, along with a minimum lock-in period of 10 years, once a company opts for this system.

[4] For estimating tonnage tax, it has been assumed that all companies would shift towards it.

Table 5.7 Projected tonnage and tonnage tax

	2002	2003	2007	2011	2016	2020	2027
Tonnage (million grt)	6.94	6.87	6.41	6.31	6.61	7.03	8.03
Tonnage added (million grt)		0.40	0.39	0.35	0.37	0.39	0.45
Tonnage deleted(million grt)		0.47	0.54	0.24	0.28	0.28	0.28
Tonnage tax (million Rupees)		163	152	150	157	167	191

Revenue implications of tonnage tax

With the adoption of the tonnage tax, there is likely to be an increase in the total tonnage of the industry as shown in Table 5.7. However, this would imply that the government would get lower tax revenue per GRT than in the corporate tax regime, from the shipping industry. In this section, a comparison of the loss to the government (corporate tax) vis-à-vis likely gain from the tonnage tax has been made.

The impact of the introduction of tonnage tax is detailed in Table 5.8 which shows that in the corporate tax scenario, the corporate tax would go down with a decline in the Indian shipping industry's tonnage. In the corporate tax scenario, the tonnage deleted (based on age profile of ships) is more than the tonnage added to the Indian fleet every year (detailed out in Annexure 5.5). In the tonnage tax scenario, the potential tax revenue would increase with the progressive additions to Indian tonnage (details in Annexure 5.8). The potential net impact (i.e. tonnage tax less corporate tax) on the tax revenue is likely to remain negative down the years though it would progressively become lower. This will happen because the level of taxation in the tonnage tax regime is much lower (1%–2 %) than that in the corporate tax regime (7.5%).

Table 5.8 Potential direct impact on tax revenue of the government

Year	Corporate tax scenario		Tonnage tax scenario		Net impact in million Rs
	Tonnage Million grt	Corporate tax Million (Rs)	Tonnage Million grt	Tonnage tax Million (Rs)	
(1)	(2)	(3)	(4)	(5)	(6) = (5)- (3)
2003	6.73	542	6.87	163	-378
2004	6.46	520	6.81	162	-358
2005	6.19	498	6.69	159	-339
2006	5.91	476	6.55	156	-320
2007	5.63	453	6.41	152	-301
2008	5.46	439	6.23	148	-291
2009	5.41	436	6.15	146	-290
2010	5.43	437	6.20	147	-290
2011	5.46	439	6.31	150	-289
2012	5.38	433	6.43	153	-280

Year	Corporate tax scenario		Tonnage tax scenario		Net impact in million Rs
	Tonnage Million grt	Corporate tax Million (Rs)	Tonnage Million grt	Tonnage tax Million (Rs)	
(1)	(2)	(3)	(4)	(5)	(6) = (5)- (3)
2013	5.29	426	6.46	154	-272
2014	5.22	420	6.48	154	-266
2015	5.06	408	6.52	155	-253
2016	5.04	406	6.61	157	-249
2017	5.02	404	6.71	160	-245
2018	5.00	403	6.81	162	-241
2019	4.98	401	6.92	164	-237
2020	4.96	400	7.03	167	-232
2021	4.94	398	7.15	170	-228
2022	4.92	396	7.28	173	-223
2023	4.90	395	7.42	176	-218
2024	4.88	393	7.56	180	-213
2025	4.86	391	7.71	183	-208
2026	4.84	390	7.87	187	-203
2027	4.82	388	8.03	191	-197
2028	4.80	387	8.21	195	-191

The calculation of tonnage tax in Table 5.8 is calculated based on likely investments from SRF and the amount generated from the market. Given the likely size of the total amount, it would only marginally increase the tonnage of the Indian shipping industry. However, imposition of tonnage tax which is widely used in other countries would help attract foreign direct investment (FDI), and new players into this sector, as has happened in other countries. This would result in an increase in tonnage and also have a positive overall impact on the economy. For every additional million grt added due to a conducive environment created by adopting of tonnage tax, about 24 million rupees of tonnage tax can be paid by the shipping companies to the government every year.

The adoption of the tonnage tax regime would also send out clear signals of stability in tax, and the government's encouragement for the shipping industry. The tonnage is thus expected to increase over the estimates in Table 5.11 if the tonnage tax scheme is adopted, but it would not be possible to estimate the likely increase.

In the following section, an attempt has been made to capture the total impact on the economy due to a change in GRT of the Indian shipping industry in terms of the potential tax revenue. The potential tax revenue could be affected not only by a profitable shipping industry, but also because the industry has an overall positive impact on the economy.

Equation 7 estimates the elasticity (ψ) of GDP of the economy with respect to GRT of the shipping industry, showing the percentage change of the GDP of the economy for a given percentage change in GRT. Using the tonnage tax scenario, (in Table 5.8) the percentage change in GRT is estimated. These two estimates are then used to calculate the impact that changes in GRT over the years would have on the GDP of the economy. For this latter calculation a GDP for the economy at an annual growth rate of 5.5%[5] is assumed.

The impact on the tax revenue due to change in the GRT (Ω) over the years in the tonnage tax scenario is estimated by using the Tax: GDP ratio (direct + indirect). This ratio stood at 9.9% for the year 2001/02 (Economic Survey 2001-02). The impact on tax revenue is calculated by multiplying the estimated impact on the GDP for a given year and the tax: GDP ratio (Equation 12).

$$\Omega = \text{Impact on GDP} \times \text{Tax: GDP ratio} \qquad \text{......Equation (12)}$$

The value of Ω for each year is given in Table 5.9. The tonnage declines in the initial years till 2009 as the tonnage deleted from the Indian fleet is more than the tonnage added which also leads to negative impact on the tax revenue till 2009. However, a tonnage tax regime is likely to increase the tonnage over the years increasing the potential tax revenue progressively from 2010 onwards. As has been highlighted earlier, the projected tonnage does not take into account any investment (for instance FDI) that could come in due to the adoption of tonnage tax.

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[5] Between 1992/93 and 2000/01, the average growth rate has been over 6%. In 2001/02, the growth in GDP was around 5.4%. The 10th Plan Working Group has put forward a target of 8% GDP growth rate and suggested a reform package to raise the growth rate from the present level of 5.5%. For the purpose of our study, we have taken a 5.5% growth rate as a reasonable rate of growth for the future years.

Table 5.9 Potential impact on tax revenue in tonnage tax scenario[6]

Years (1)	GRT (in million) (2)	Impact on GDP (in million Rs) (3)	Impact on Tax revenue (in million Rs) (4)[7]
2003	6.87	-956	-94
2004	6.81	-879	-87
2005	6.69	-1922	-190
2006	6.55	-2188	-216
2007	6.41	-2675	-264
2008	6.23	-3396	-336
2009	6.15	-1657	-164
2010	6.20	1072	106
2011	6.31	2589	256
2012	6.43	3019	298
2013	6.46	720	71
2014	6.48	535.	52
2015	6.52	1151	113
2016	6.61	2660	263
2017	6.71	2926	289
2018	6.81	3215	318
2019	6.92	3532	349
2020	7.03	3877	383
2021	7.15	4253	421
2022	7.28	4662	461
2023	7.42	5108	505
2024	7.56	5593	553
2025	7.71	6119	605
2026	7.87	6690	662
2027	8.03	7309	723

Similarly, the change in tax revenue due to change in GRT (ϖ) has been estimated (see Equation 13) under a scenario in which the present corporate tax regime continues (in which the tonnage becomes more or less stagnant by 2018). In this case, the government's tax revenue would decrease because the tonnage decreases over the years.

ϖ = Impact on GDP × Tax in GDP ratio ......Equation (13)

The likely value of ϖ over the years 2003-2027 is given in Table 5.10, which shows that the government is likely to lose tax revenue on account of the net tonnage deletions that would take place in the corporate tax scenario as explained in earlier sections. Only in the years 2010 and 2011, there would be a positive impact on tax revenue due to increase in tonnage (for details see Annexure 5.5). There would also be a reduction in the potential tax revenue that the government could earn because of the lower profitability of the shipping industry as well as the negative impact on the economy.

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[6] Detailed calculations are given in Annexure 5.8.

[7] Column (4) has been calculated using Equation (12)

Table 5.10 Potential revenue impact on the economy in the corporate tax scenario[8]

Years (1)	GRT in million (2)	Impact on GDP in million Rs (3)	Impact on tax revenue in million Rs (4)[9]
2003	6.73	-2870	-284
2004	6.46	-4014	-397
2005	6.19	-4412	-436
2006	5.91	-5038	-498
2007	5.63	-5567	-551
2008	5.46	-3820	-378
2009	5.41	-1012	-100
2010	5.43	445	44
2011	5.46	669	66
2012	5.38	-2181	-215
2013	5.29	-2635	-260
2014	5.22	-2180	-215
2015	5.06	-5522	-546
2016	5.04	-751	-74
2017	5.02	-795	-78
2018	5.00	-842	-83
2019	4.98	-892	-88
2020	4.96	-945	-93
2021	4.94	-1001	-99
2022	4.92	-1061	-105
2023	4.90	-1124	-111
2024	4.88	-1190	-117
2025	4.86	-1261	-124
2026	4.84	-1336	-132
2027	4.82	-1415	-140

Other issues

According to an UNCTAD study (Review of Maritime Transport 2001) the freight costs for India were 10.5% of the cif value of imports during 1998. In comparison, this value stands at 5.06% for the world as a whole, and 4.07% for the developed market economy countries. While there could be various reasons for the freight cost to be high (inefficiencies or poor productivity anywhere along the entire transport chain, for instance port inefficiencies), one of the reasons often cited is the high dependence on foreign lines for the carriage of Indian overseas trade. Thus the competitiveness of Indian exports and imports is adversely affected.

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[8] Detailed calculations are given in Annexure 5.8.

[9] Column (4) has been calculated using Equation (13)

The existence of the Indian shipping industry can help in stabilizing the freight rates for Indian trade to a certain extent. There have been a few instances when the presence or absence of Indian flagged vessels has resulted in decreasing or increasing the freight rates for Indian trade. In 1991, the introduction of three Indian flagged cellular container vessels in the India/UK continent sector had a moderating influence on the freight rates which came down by around US$400/TEU from then prevailing market rates. With the acquisition of LPG carriers by Indian ship owners, the freight rates for West Asian Gulf/Vizag dropped from US $ 55/tonnes to below US$ 40/tonne. The daily charter rates of US$ 4600 paid to foreign flag offshore supply vessels (OSV) came down to around $3000/day with the acquisition of OSV's by INSA. Conversely, the freight rates of regular liner services in the Indian/Australian trade went up when the Indian flagged vessels were withdrawn, for operational reasons. However, it can be argued that nothing prevents an Indian shipping company from joining a cartel and raising the freight rates. In sum, as long as the presence of Indian flagged vessels increases the competition, there is likely to be a moderating influence on the freight rates.

The shipping industry contributes indirectly to other sectors as well, as a result of its collateral linkages with several other industrial activities of considerable economic consequence as has been mentioned earlier. There is a whole range of infrastructure support and service support that is sought by ships (Indian or foreign). A significant support sector has to be in place for ensuring that shipping thrives, starting from ports, land-based transport linkages, ship repair, ship building, agents, regulatory authorities, insurance, banking, etc. Thus, the shipping industry contributes to these industries as well. There are a few studies that have been conducted internationally on the subject. In the UK, according to the Lord Alexander's Report[10], the sectors associated with the British shipping industry that benefit directly or indirectly from the spillover or induced effects of their association with it, contribute at least 75% of the explained in earlier sections. Only in the years 2010 and 2011, there would be a positive impact on tax revenue due to increase in tonnage (for details see Annexure 5.5). There would also be a reduction in the potential tax revenue that the government could earn because of the lower profitability of the shipping industry as well as the negative impact on the economy.

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[10] (http://www.hm-treasury.gov.uk/documents/enterprise_and_productivity/encouraging_enterprise/ent_ee_tonnage.cfm accessed on 4 November, 2002)

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[10] (http://www.hm-treasury.gov.uk/documents/enterprise_and_productivity/encouraging_enterprise/ent_ee_tonnage.cfm accessed on 4 November, 2002)

In India too, in spite of the fact that most of these ancillary and associated sectors have not yet attained a stage of maturity as in the UK, the development and indigenization of these sectors has been possible due to the availability of skills and expertise in the Indian maritime sector. For instance, maritime arbitrations, which in accordance with internationally prevailing Terms of Charters, concluded prior to the 1990's that were always referred to and settled in London, have now been almost completely brought within the jurisdiction o the Indian Arbitration Act and Indian courts, reducing, considerably, the costs to the Indian consumer.

According to the Rakesh Mohan Committee report, the net aggregate contribution of shipping and its satellite industries could be of the order of 2.5%–3% of the national GDP.

6

Conclusions and recommendations

Shipping is vital for the overall efficiency of the economy and the growth of the country's trade. It is crucial for keeping the supply lines open for the transport of essential goods, material and men during peacetime as well as during emergencies such as war. Around 95% of India's international trade in terms of volume and 68% by value terms is moved by sea. India's overseas trade has grown steadily in the past decades; it was about 30.0 million tonnes in 1960/61, reached a level of 72 million tonnes in 1980/81 and reached a level of over 225 million tonnes in 1999/2000.

It has been well recognized by a number expert committees that a steady and sustained growth of Indian shipping is essential. Shipping is a vital component of our foreign trade and there is substantial scope for its expansion in India. The economic contribution of the Indian shipping industry to the Indian economy is positive, (Chapter 5), with the shipping industry contributing both directly (GVA from the industry) and indirectly through its collateral linkages. A high rate of industrial growth rate is essential for achieving a reasonably high rate of GDP growth. This in turn, calls for the long-term security of energy supplies. For ensuring this, an adequate shipping fleet under the national flag is essential, which can be requisitioned and depended upon in times of emergency also. The relevance of the shipping industry to energy and national security cannot be underestimated.

The Indian shipping has witnessed only a marginal or no growth at all over the past few years. A variety of factors have affected the competitiveness of the Indian shipping industry putting it at a disadvantage internationally. Some of these factors are high and inequitable taxation regime, both for the companies and the sea-going personnel, unfavourable cost of finance for ship acquisition due to restrictive financial norms, relatively low international credit rating of the country, withdrawal of exemption from withholding tax etc. (Chapter 5).

In the global shipping industry, there are around 17 registries, which have a greater tonnage as compared to India. Out of these 17, four registries have incidental measures, such as shipbuilding cost subsidies, cargo support, cabotage, etc. that support their national flag. The other 13 registries offer a very favourable taxation regime in which the effective rate of taxation is less than 1%.

Over the past few years, a number of maritime nations have passed favourable tax rules in order to promote their maritime industries and businesses. This was necessitated by the increasing number of shipping companies flagging out their fleets to regimes with better fiscal incentives and tax breaks. Countries such as UK, the Netherlands, Norway, Greece, Germany introduced a tonnage tax regime within guidelines, designed to provide EU countries a low tax environment, which will enable them to compete internationally.

In UK, the government recognizing the special importance of shipping designed a policy so as to reverse years of decline in the country's fleet and seafaring. The shipping tonnage fell from a peak of 50 million dwt in 1975 to 9.7 million dwt in 1998. Also, there was a significant decline in the number of British seafarers between 1980 and 1997. The number of officers fell by 78% and the number ratings by 65% during this time. In the past, shipping had been granted special tax breaks. Substantial grants were given for training officer cadets and the income tax treatment of some UK seafarers was favoured through the Foreign Earnings Deduction. The total cost of such measures was estimated to average about £85 million a year. In 2001, the UK government introduced the tonnage tax regime to increase UK's attractiveness to shipping enterprises. As per the Lord Alexander report, with a combination of group relief, of 25% capital allowances and of 'roll-over relief' shipping industry as a whole pays no more than about 1.5% corporation tax. The Inland Revenue Department, UK, made various estimates of the annual cost of the tonnage tax regime after five years of operation. According to these estimates, the extra costs of tonnage tax as compared with the prevailing corporate tax was around £15 million a year assuming no increase in the size of the industry. Under the tonnage tax regime, 598 ships were added. Similarly, in Norway 5.5 million GRT (229) ships were added over a two-year period between 1996 and 1998. In the Netherlands, 1.1 million GRT (142 ships) was added within two years of introduction of the Tonnage tax.

It is mandatory to create an investment environment conducive to the growth of the national fleet by providing a level playing field to the industry and improving the competitiveness of the Indian shipping industry. The following are recommended:-

1 Introduce a tonnage tax regime with the shipping companies free to adopt the tonnage or the corporate tax regime.
2 Withholding tax on the interest paid on ECB's should be abolished.
3 Treatment of Indian nationals serving on Indian flagged ships on a par with those employed on foreign flagged ships.

4 Increase in the rate of depreciation on ships from 25% to at least 40% in line with other modes of domestic transport in commercial use.

Annexures

1.1

Policy reforms in India

Over the years various committees have been set up to review the issues and challenges facing the Indian shipping industry and make recommendations introducing policy and fiscal reforms. Some of these committees are:

1 Report of the expert committee to review Indian Shipping (Dr Rakesh Mohan Committee) January 2002
2 Report of working group on shipping for the 10th Five Year Plan, October 2001
3 Expenditure Reforms Commission report on rationalization of functions, activities and structure of the Ministry of Shipping, 2000
4 Expert Group on Draft Coastal Shipping Act (S N Kakkar), 1999
5 National Shipping Policy Committee (Shri M P Pinto), 1997
6 Working Group on Coastal Shipping (Shri D K Afzulpurkar), 1993
7 Review of the group on Review of Shipping Policy guidelines, 1994
8 Towards a National Shipping Policy: A study of the Indian shipping industry, IIM Ahmedabad, 1996
9 Review of the committee to review the Merchant Shipping Act, 1958 (Praveen Singh Committee Report), 1991
10 Coastal Shipping Committee (Shri R D Pradhan), 1981
11 National Transport Policy Committee (Shri B D Pande), 1980

The major recommendations of the committees on overseas shipping are summarized in Table below and details of which are discussed subsequently:

Table 1 Summary of issues and recommendations

S.No	Issues and Recommendations	Name of committee
1.	Adoption of tonnage tax system	• Rakesh Mohan Committee, 2002 • Report of working group on Shipping for 10th Five Year Pla 2001
2.	Rationalization of the tax regime for Indian seafarers	• Rakesh Mohan Committee ,2002 • Report of working group on Shipping for 10th Five year pla 2001 • National Shipping Policy Committee Report, 1997
3.	Simplification of procedure for acquisition of ships	• Report of working group on shipping for 10th Five Year Pla 2001 • National Shipping Policy Committee Report, 1997
4.	Cargo support	• Report of working group on shipping for 10th Five Year Plan, 2001 • National Shipping Policy Committee Report, 1997
5.	De-reservation of liner routes	• Report of working group on shipping for 10th Five Year Plan 2001 • National Shipping Policy Committee Report, 1997
6.	Remove age restriction norms	• Report of working group on shipping for 10th Five Year Plan, 2001 • National Shipping Policy Committee Report, 1997
7.	Legislative measures	• Report of working group on shipping for 10th Five Year Plan 2001 • National Shipping Policy Committee Report, 1997 • Praveen Singh Committee report, 1991
8.	Grant export industry status	• Report of working group on shipping for 10th Five Year Plan 2001 • National Shipping Policy Committee Report, 1997
9.	Increase depreciation rate	• Report of working group on shipping for 10th Five Year Plan 2001 • National Shipping Policy Committee Report, 1997
10.	Relaxation of ECB guidelines	• Report of working group on shipping for 10th Five Year Plan 2001 • National Shipping Policy Committee Report, 1997
11.	Setting up a maritime authority	• Expenditure Reforms Commission Report
12.	Manpower development and manning of Indian ships	• Report of working group on Shipping for 10th Five Year Plan 2001 • National Shipping Policy Committee Report, 1997

Report of the expert committee to review Indian Shipping
(Dr Rakesh Mohan Committee), January 2002

The Committee recommends that:

(i) The Government must recognize the vital role of shipping in the national economy and provide a fiscal regime for Indian shipping taking into account the fact that more than 90% of world tonnage is on a very low level of taxation and thus there is a need to provide a level playing field so that Indian shipping becomes internationally competitive.

(ii) In order to facilitate this, a Tonnage Tax scheme be devised to be implemented effective from FY 2002-2003.

(iii) Indian shipping companies be given the freedom to opt for the Tonnage Tax regime or continue to remain within the normal Corporate Tax regime.

Tonnage tax system recommended for adoption

It is recommended that suitable provisions/amendments be brought about in the Income Tax Act to give effect to the Tonnage Tax system. These provisions will prescribe among other things:

(i) Qualifying company;
(ii) Qualifying shipping activities;
(iii) Qualifying income;
(iv) Eligibility criteria for ships;
(v) Rules for entry/exit;
(vi) Account standards for ease of administration of the Act.

It is recommended that a window period of 2 years be allowed (a cut-off date) for shipping companies to opt for the scheme after the Amendments come into force.

A minimum lock-in period of 10 years is recommended once a shipping company opts to be taxed under the Tonnage Tax.

Once the Tonnage Tax system is opted for, minimum of 20% of the book profit computed as per the Companies Act 1956 should be credited to a separate reserve account to be utilized only for acquisition of ships within a period of 8 years.

Rationalisation of the tax regime for Indian seafarers

In order to make employment on Indian ships attractive vis-à-vis foreign ships, it is essential that Indian nationals serving on board Indian flagships be treated equally with those Indians employed on foreign ships. This may be brought about by

(i) Insertion of appropriate provision in Section 10 of the Income Tax Act.

(ii) In the alternative, the Board in exercise of its power under Sec 119 of the Act, may issue a Circular that would put an end to the discriminatory consequences of the CBDT circular of 28-11-1990, though such discrimination was unintended.

The above tax relief be extended to seafarers employed on ships opted for tonnage tax as well as those who remain under the corporate tax regime.

Report of working group on shipping for 10th Five Year Plan, October 2001

Simplification of procedure for acquisition of ships

The procedure for ship acquisition for public sector companies should be more or less as easy and fast as in private sector so as to take advantage of favourable market and cheaper finance and to have flexibility in purchase of ships. To facilitate this objective limit of Rs 300 crores per project should be done away with.

Cargo support

Government should pursue FOB policy for LNG transportation on the one hand and promote joint ventures of Indian shipping lines with shipping majors of countries possessing comparative advantage in the area on the other hand with the stipulation that the vessel will switch to Indian flag after a certain period. In other words, some sort of cargo support should be assured for the Indian shipping lines. The Indian shipping companies and or their offshore subsidiaries should necessarily participate in the transportation of LNG.

De-reservation of liner routes

There is urgent need to publicize that all the liner routes have been delicenced sc that more players can participate. In this regard recommendation of Sub-group on Shipping for 9th Plan may be recalled where similar suggestion was made.

Age restriction norms

Even the prevailing age norms for acquisition of second-hand vessels, balance life of five years has been stipulated. It is working as a great disadvantage to ship acquisition by Indian companies. One of the purposes of imposing age restriction was to ensure greater safety of ships. This aspect has been taken care of by virtues of several IMO conventions where stringent safety norms have been prescribed besides tightening of flag state control implementation. This restriction is wholly unequal as in case of cargo imported on other flag vessels;

there is absolutely no age bar. In fact, the ships have always been considered as floating assets. Hence, there is need to do away with age restriction and to ensure level playing field for Indian ship owners.

Legislative measures

There is lack of clarity about coordination among Central Government, major ports, State Maritime Boards, minor ports, D.G. Shipping, and Coast Guard etc. In respect of registration of water transport crafts, particularly sailing vessels, fishing vessels, barges etc. there appears to be a lack of a uniform administrative set up for ensuring safety of life and cargo. In order to comply with IMO/ILO regulations, recommendations of various Committees for amendments to MS Act (like Praveen Singh Committee) should be implemented urgently. This would bring our regulations concerning maritime safety, manpower requirement etc. on par with international standards. Manning scale of crewmen in reducing operational cost will have to be attended to by the unions, ship owners and regulatory authorities.

There is pressing need to overhaul the existing MS Act in order to incorporate the IMO/ILO Convention/Protocols. A three-tier structure of bare Act, Rules and executive instructions should be put in place at the earliest.

Open and dual registry

Open register would be in competition with other FOCs like Liberia, Panama etc. and would seek to attract the same clientele. Given the fact that India's Maritime administration enjoys a high reputation, the advantage of being associated with the Indian open register may appeal to a number of ship owners provided suitable tax concessions are given. Obviously, Indian owners would also be entitled to take advantage of this open Register. The condition should include freedom to engage any crew, higher rates of depreciation etc. Associated maritime service industries like financial, legal, insurance, ship management and repair, etc. may be affected by the decline in the national tonnage. Some argue that the response is to open a second register as a means of addressing the problem of declining shipping tonnage. Whether second registry would be helpful or not in augmenting the fleet controlled by Indian shipping companies by offering them the choice to employ crew from different sources has to be examined.

Export industry status

In order to attract flow of funds for growth of Indian tonnage, infrastructure status for this sector of industry (with attendant fiscal benefits) is a must on the lines of what has been done for roads, ports and inland waterways. Shipping must also be recognised as an export industry on par with other industries that export manufactured goods and services like software development. The Pinto Committee on National Shipping Policy has already made similar recommendations.

Taxation

The corporate tax rate (currently 35% + surcharge of 2%) would then be levied on the derived profit to arrive at the tax liability. The other conditions for companies choosing to opt for the tonnage tax system would include:

- Well defined criteria for eligibility of ships and operating companies
- Income on non-shipping activities like real estate, investments and offshore operations etc. are excluded from shipping income.
- The company having elected the tonnage tax system would have to remain locked in for a period of 10 years. In the event of a company revoking its choice, the difference between liabilities under the two parallel systems will have to be squared up;
- No capital allowance or benefits available under Section 33 AC;
- It is therefore recommended that general/share premium reserves be considered for the purposes of S 33AC and the section be amended to allow deduction up to twice the paid up capital plus reserves;
- It is also recommended that the deduction under S 33AC be allowed even in respect of MAT-paying companies. As the objective of S 33AC is encouraging tonnage growth, there should be no distinction in respect of companies paying corporate tax of MAT;
- It is recommended that the Section 33AC benefit be extended to multi-activity companies in respect of their shipping income only. This could help serve the purpose of quick augmentation of the national tonnage.

Depreciation rate

There is a strong case for removing this inequity by raising the depreciation rate for ships from 25 to 40% and thus bring it on par with the other modes of transport. This will help companies in building up reserves in profitable years to finance fleet replacement and growth. It may be mentioned in this context that the age profile of the Indian fleet is rapidly deteriorating and now stands at an average age of 16 years with over 55% of the fleet needing to be replaced in the next 5 years. It is recommended that the level of depreciation be improved to bring it on par with the other modes of transport at 40%.

Tax exemption for seafarers

It is recommended that the Indian crew employed on Indian flag vessels be allowed a tax exemption on their income so that they are on par with their counterparts employed on foreign flag vessels. Alternatively, the benefit earlier available u/s 80 RRA of the IT Act, wherein Indian crew earning income in foreign currency were to pay tax only on 75% of such income on repatriation to India, needs to be restored.

Relaxation of ECB guidelines

- It is recommended that this section be amended to allow for classification of ships as permissible security thus enabling a wider category of investor participation in shipping companies.
- It is recommended that to allow the shipping companies greater flexibility in their borrowings programme the guidelines be relaxed to allow for:
  - Removal of withholding tax of 20% on ECBs
  - Option to prepay to be left to the discretion of the shipping companies
  - Average maturity to be reduced from the current level of 5 to 3 years

Expenditure reforms commission report

Rationalization of functions, activities and structure of the Ministry of Shipping, 2000

1. Licensing of ship acquisition should be abolished and the Government should leave it to DG, Shipping to ensure the safety and sea worthiness of a ship.
2. SCI is a candidate for disinvestment and the disinvestment should be completed.
3. Corporatisation of the operations of Transchart would result in a reduction in the staff strength. This exercise should be carried out in six months.
4. The ship building and repair activity of CIWTC should be closed and the assets disposed of.
5. A Maritime Authority should be set up to oversee and regulate conservancy functions in the major and minor ports and exercise all the functions of the DG, Shipping and also of the DG, Shipping and also of the DG, Lighthouses.

Consequently, the tariff authority of major ports could be wound up and the maritime authority empowered to look into cartelisation/monopoly issues and arbitrary fixation of tariffs by ports/shipping lines where necessary.

6. Government must accord the highest priority to the Inland Water Transport and formulate a National Waterways Development Programme on the line of the NHDP.

Expert Group on Draft Coastal Shipping Act

(S N Kakkar),1999

The committee has accordingly proposed comprehensive legislative provisions modelled on the pattern of the Merchant Shipping Act, 1958 with suitable relaxations or modifications wherever considered necessary and found technically feasible.

General administration

The committee proposes that within the present Maritime Administration, a separate cell or wing be created with suitable additional manpower as may be necessary to administer the provisions of the Coastal Shipping Act as also to perform certain specified functions to facilitate the growth and smooth operation of coastal shipping.

Provision for institutional finance:

With the abolition of the erstwhile Shipping Development Fund Committee (SDFC) and deletion of related provisions of the M.S. Act, in 1986, there is a serious lacuna in securing developmental finance on soft terms for shipping in general, and coastal shipping in particular.

The committee therefore strongly recommends making statutory provisions in the proposed Coastal Shipping Act for the setting up of a Coastal Shipping Financing Agency, specifically for funding acquisition of ships for coastal trade

Cabotage

To ensure effective application of the Cabotage Law as embodied in Sec. 407 o the M.S.Act, 1958 and prevent deployment of foreign flag vessels in coastal waters even when Indian ships are available, Secs. 407 to 410 are proposed to incorporated in this Act with suitable modifications. The committee also recommends laying down of clear-cut guidelines for prohibiting employment foreign flag vessels in India's coastal trade when Indian ships are available an for ensuring that foreign flag ships are permitted to operate in coastal trade only on case to case basis.

Exemption from customs duty on imported spares, essential stores and bunkers

To achieve economy in operation and maintenance of coastal ships, as also to obviate delays in customs duty be granted in respect of coastal ships as in the case of foreign going ships. The committee also recommends that bunkers be made available to coastal ships at international prices.

Port facilities

The committee also recommends that special attention be given to the development of minor/intermediate Ports so that coastal shipping can be shielded from the high cost of stevedoring labour prevailing at major ports.

Registration of coastal ships

All mechanically propelled ships above 15 tons net presently operating in the coasting trade of India covered by the M.S. Act, 1958 and the Coasting Vessels Act 1838 including Mobile Offshore Drilling Units (MODU), Passenger Ships, Hovercrafts, Supply Vessels, Dredgers, Survey Vessels, Catamarans etc., are being brought within the purview of the proposed Coastal Shipping Act.

The Committee recommends that having regard to the strategic importance of coastal shipping and the fact that it is primarily another mode of domestic transport, the Government should lay down appropriate guidelines to administratively ensure effective participation by Indian citizens in equity capital and management control of coastal ships.

Manning of ships - certificates of officers

In recognition of need for a liberal approach in prescribing minimum manning scales for coastal ships on the basis of the provisions in the STCW Convention for "Near Coastal Voyages," the Committee recommends that officers holding Certificates of Competency under the new M.S. (STCW) Rules, 1998 could be employed on coastal ships, besides officers holding Certificates granted under the M.S.Act, 1958.

Seamen and apprentices

Most of the provisions of Part VII of the M.S. Act, 1958 concerning seamen, which are based on the provisions of the ILO Conventions, (except those that are not of relevance to seamen engaged on coastal ships) are proposed to be incorporated in the Coastal Shipping Act.

The Committee is of the view that a separate cadre of seamen should be created for coastal ships and has accordingly proposed suitable provisions in the Coastal Shipping Act so as to make the shipping companies concerned responsible for selection, training and promotion of seamen on their coastal ships so that they can build up a dedicated and trained cadre of seamen to man their ships and minimize their drift to foreign going Indian ships or foreign flag ships.

In order to curb acts of indiscipline of seamen, particularly those leading to hold up of ships, it is proposed to incorporate suitable provision as proposed by Praveen Singh Committee, for suspension or cancellation of CDCs of the defaulting seamen.

National Shipping Policy Committee Report

(Shri M P Pinto),1997

Shipping - an export industry

- Shipping must be recognized as an export industry on par with other industries that export manufactured goods or services like software development.
- Accordingly shipping must receive all the fiscal and funding benefits available to other export industries so as to encourage and assist its growth.

Corporate taxation

- Section 33AC should be restored in its original form and the same deduction should be permitted from book profits for the purpose of determining the MAT liability. This has a precedent in an earlier implementation of tax on book profits through Section 115J
- A 40% depreciation rate should be made available to for ships to bring parity amongst all modes of commercial transportation.

Taxation of seafarers

- Any period spent by a seafarer serving on any Indian ship, irrespective of area of operations should be treated as time spent serving overseas.
- Remuneration for shipboard service should be treated as foreign source income accrued and earned overseas.